CASSETTE TAPE DECK

CT-F7272
CT-F7070

SERVICE MANUAL

TAPE
CrO2
Fe-Cr
REC
DOLBY NR
MEMORY
DOLBY NR
TAPE
(AUTO-CrO2)
INPUT
OUTPUT
POWER
REC
PAUSE
OFF
ON
DOLBY SYSTEM
ON
ON
Fe-Cr
MIC
PHONES
PIONEER STEREO CASSETTE TAPE DECK MODEL CT-F7272
SA-C60 TDK

PIONEER®

MODEL CT-F7272 COMES IN TWO VERSIONS DISTINGUISHED AS FOLLOWS:

Type	Voltage	Remarks
KCU	120V only	CSA (Canada) and UL (U.S.A.) approved.
D	120V, 220V, 240V (switchable)	General export model.

MODEL CT-F7070 COMES IN TWO VERSIONS DISTINGUISHED AS FOLLOWS:

Type	Voltage	Remarks
D	120V, 220V, 240V (switchable)	General export model.
HG	220V, 240V (switchable)	SEMKO (Sweden), NEMKO (Norway), DEMKO (Denmark) and EI (Finland) approved.

This service manual is applicable to the MODEL CT-F7272/KCU.

CONTENTS

1. SPECIFICATIONS 5
2. FRONT PANEL FACILITIES 6
3. CONNECTION DIAGRAM 8
4. LEVEL DIAGRAMS 9
5. CIRCUIT DESCRIPTIONS 10
6. BLOCK DIAGRAM 13
7. DISASSEMBLY 15
8. PARTS LOCATIONS
    - 8.1 Front View 17
    - 8.2 Front View with Panel Removed 19
    - 8.3 Top View 21
    - 8.4 Rear View 23
9. ELECTRICAL ADJUSTMENTS 25
10. MECHANICAL ADJUSTMENTS 28
11. SCHEMATIC DIAGRAMS P.C. BOARD PATTERNS AND PARTS LIST
    - 11.1 Schematic Diagram 31
    - 11.2 Miscellaneous-parts 33
    - 11.3 Control Assembly (RWG-062) 34
    - 11.4 REC/PB Amplifier Assembly (RWF-056) 37
    - 11.5 Indicator Assembly (RWX-130) 47
    - 11.6 Dolby Module 47
    - 11.7 Switch Assembly (RWS-044) 48
    - 11.8 Jack Assembly (RWX-128) 50
    - 11.9 Power Supply Assembly (RWR-035) 52

12. EXPLODED VIEWS

12.1 Outline 55
12.2 Part 1 Main Chassis 57
12.3 Part 2 Panel Stay 59
12.4 Part 3 Rear Panel 60
12.5 Part 4 Door 60
12.6 Transport Section 61
12.7 Part 5 Transport Chassis 63
12.8 Part 6 Operating Levers 65
12.9 Part 7 Sub-chassis 66
12.10 Part 8 Reel Assembly 66
12.11 Part 9 67
12.12 Part 10 67
12.13 Part 11 67
12.14 Part 12 67
12.15 Part 13 68
12.16 Part 14 68
12.17 Part 15 68
12.18 Part 16 68
12.19 Part 17 69
12.20 Part 18 69
12.21 Part 19 69
13. PACKING 70

Additional Service Manual

1. SPECIFICATIONS 71
2. CONTRAST OF MISCELLANEOUS PARTS 72

3. MODEL CT-F7272/D

3.1 Schematic Diagram 73
3.2 Power Supply Assembly (RWR-039) 75
3.3 Rear Panel 77
3.4 Packing 78

4. MODEL CT-F7070/HG

4.1 Schematic Diagram 79
4.2 Power Supply Assembly (RWR-036) 81
4.3 Rear Panel 83
4.4 Packing 84

5. MODEL CT-F7070/D

5.1 Schematic Diagram 85
5.2 Rear Panel 87
5.3 Packing 88

1. SPECIFICATIONS

Systems	Compact cassette, 2-channel stereo
Motor	Electronically-controlled DC motor (built-in generator) x 1
Heads	"Ferrite Solid" recording/playback head x 1 Ferrite erasing head x 1
Fast Winding Time	Approximately 85 seconds (C-60 tape)
Wow and Flutter	No more than 0.07% WRMS (JIS), No more than ±0.19% WRMS (DIN)
Frequency Response	Standard, LH tapes: 30 to 14,000Hz (40 to 13,000Hz ±3dB), (30 to 13,000Hz, DIN) Chromium dioxide tape: 30 to 17,000Hz (40 to 15,000Hz ±3dB), (30 to 14,000Hz, DIN) Ferri-chrome tape: 30 to 16,000Hz (40 to 15,000Hz ±3dB)
Signal-to-Noise Ratio	Dolby OFF: More than 52dB Dolby ON: More than 62dB (over 5kHz, standard, LH tapes) (When chromium dioxide tape is used, signal-to-noise ratio is further improved by 4.5dB over 5kHz) More than 57dB (DIN)
Harmonic Distortion	No more than 1.7%
Inputs (Reference level/Maximum allowable input/Impedance)	MIC x 2; 0.23mV/80mV/23kΩ, 6ϕmm jack (Reference MIC impedance; 600Ω to 50kΩ) LINE x 2 (2-channel stereo); 64mV/25V/100kΩ DIN (REC/PLAY) x 1; Input & Output, 10mV/3.6V/2.2kΩ, 5p jack (DIN standard)
Outputs (Reference level/Maximum level/Load impedance)	LINE x 2 (2-channel stereo); 450mV/800mV/50kΩ HEADPHONE x 1; 60mV/100mV/8Ω DIN (REC/PLAY) x 1; 450mV/800mV/50kΩ (DIN standard) ● With output level controls
Semiconductors	
Amplifier Section	Transistors; 35, Diodes; 22 Zener Diode; 1, FETs; 2; LEDs; 2, Dolby module; 2
Motor Control Section	Transistors; 3, Diode; 1
Subfunctions	● Dolby system (ON-OFF) with indicator lamp ● Tape selector (STD/FeCr/CrO_2) with CrO_2, Fe-Cr indicator lamp and chrome tape Auto-switchable mechanism ● Cassette compartment illumination ● Memory stop mechanism (ON/OFF)

Power Requirements	AC 120V, 50Hz/60Hz
Power Consumption	18 watts.
Dimensions	453(W) x 177(H) x 343(D)mm. Max. 17-13/16 x 6-15/16 x 13-1/2 in.
Weight (without package)	9.5kg (20 lb 15 oz)
Furnished parts	Stereo connecting cord with pin plugs; 2 Head cleaning kit; 1 Operating instructions; 1

NOTES:

1. Reference Tapes: Standard & LH: DIN 45513/BLATT6 or equiv.
   CrO_2: DIN 45513/BLATT7 (CrO_2) or equiv.
2. Reference Recording Level: Meter 0dB indicating level (160 mwb/m magnetic level = Philips cassette reference level)
3. Reference Signal: 333Hz
4. Wow & Flutter: ● JIS [3kHz, with acoustic compensation (weighted) rms value] ● DIN [3150Hz, with acoustic compensation (weighted) PEAK value]; DIN 45507
5. Frequency Response: ● Measured at –20dB level, DOLBY OFF, level deviation is ±6dB without indication ● DIN is DIN 45500
6. Signal-to-Noise Ratio: ● Measured at +4dB level (250 nwb/m magnetic level = DIN 45513 specified reference level), IEC A curve with acoustic compensation (weighted) ● DIN is DIN 45500
7. Sensitivity: Input level (mV) required for reference recording level with input (REC) controls set to maximum.
8. Maximum Allowable Input: While decreasing settings of input (REC) level controls and increasing level at input jacks, this is the maximum input level (mV) at the point where recording amplifier output waveform becomes clipped.
9. Reference Output Level: Playback output level when meter indicates 0dB.
10. Maximum Output Level: Playback output level with respect to reference recording level when output (PLAY) level controls are set to maximum.

NOTE:
Specifications and the design subject to possible modification without notice due to improvements.

2. FRONT PANEL FACILITIES

POWER SWITCH

Press to turn power ON. Level meters and internal illuminating lamp will light. To turn power OFF, again press the button to release it.

CASSETTE DOOR

Open and close door gently by hand. To protect tape and transport from dust, keep door closed whenever possible.

TAPE COUNTER

Indicates tape running position.

RESET BUTTON

Press to reset tape counter digits to "000".

CrO2 INDICATOR LAMP

Lights when chrome tape is being used. Also lights when there is no cassette in the cassette compartment.

Fe-Cr INDICATOR LAMP

Lights when TAPE selector switch is set to Fe-Cr (for ferri-chrome tape).

LEVEL METERS

Display input level during recording and output level during playback.

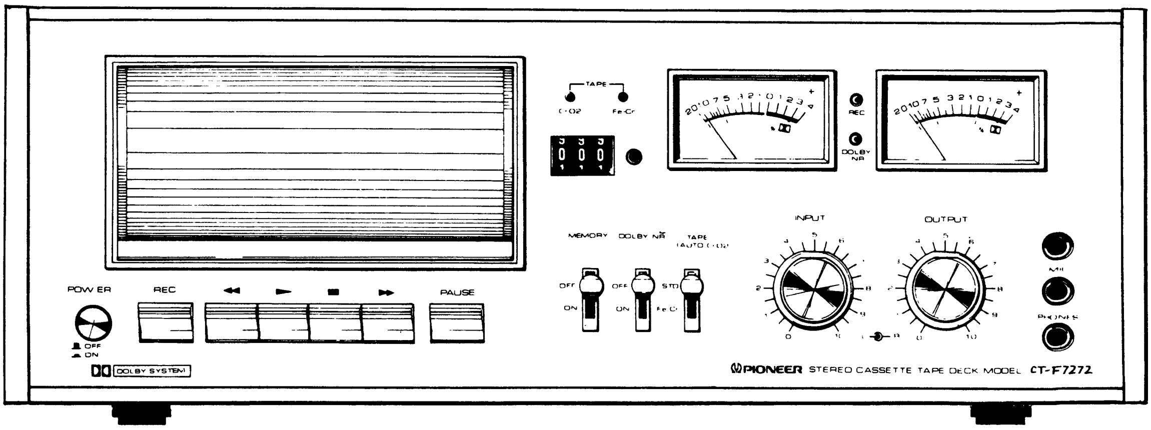
REC INDICATOR

Lights red during recording.

NOTE:
Be sure to confirm REC indicator lighting before proceeding to record.

DOLBY INDICATOR LAMP

Lights to indicate Dolby recording or Dolby playback.



MEMORY STOP SWITCH

When set to ON, the tape running position during record or playback corresponding to "000" counter indication becomes registered. Employ in such situations as when desiring to again listen to the same program.

DOLBY NR SWITCH

Set to ON position to use the built-in Dolby system to perform Dolby recording or to playback Dolby recorded tape.

TAPE SELECTOR SWITCH

Selects bias and equalization according to type of tape.

STD: When using standard and LH tape
Fe-Cr: When using ferri-chrome tape

Bias and equalization become automatically selected when chrome tape equipped with extra detecting holes is used. When using chrome tape, be sure that it is provided with these holes since the automatic selector mechanism will not function if the holes are absent.

OUTPUT LEVEL CONTROLS

Adjust the output signal level during playback. The outer knob controls the right (R) channel, while the inner knob controls the left (L) channel.

INPUT LEVEL CONTROLS

Adjust recording signal input level from LINE INPUT (REC), DIN REC/PLAY and MIC jacks. The outer knob controls the right (R) channel, while the inner knob controls the left (L) channel. Observe level meters when adjusting.

PHONES JACK

Output jack for stereo headphones. These can be used for monitoring recording conditions or private listening.

CAUTION:
Do not connect a microphone to this jack, as the microphone may be damaged.

OPERATING LEVERS

RECORD (REC)

Press simultaneously with Play (▶) lever to perform recording.

PLAY (▶)

Press to play tape. To record, press simultaneously with REC lever. (Tape travels from left to right.)

REWIND (◀◀)

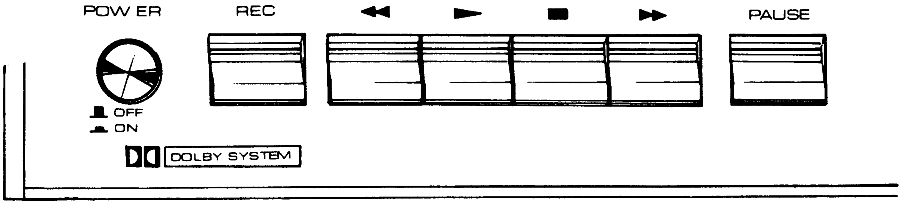
Press to rewind tape (tape travels from right to left).

STOP (■)

Press to stop tape and release other operating levers.

FAST FORWARD (▶▶)

Press for tape fast forward (tape travels from left to right).


POWER
REC
◀◀
▶
■
▶▶
PAUSE
OFF
ON
DOLBY SYSTEM

MIC JACKS

To employ microphones for recording, connect them to these jacks. Connect the left channel microphone to the L jack and the right channel microphone to the R jack.

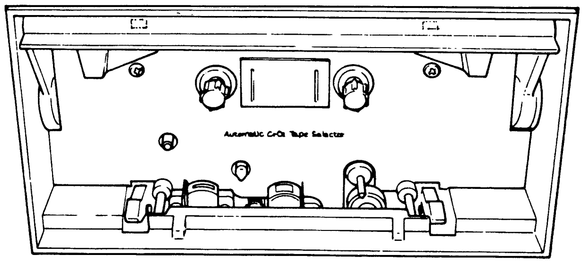
NOTE:
Be sure to disconnect microphones when not employing them. If they remain connected, recording cannot be performed from a source connected to the LINE (INPUT) or DIN jacks.

PAUSE LEVER

Depress this lever during recording or playback to temporarily stop tape motion. Press and release the lever to resume tape motion.

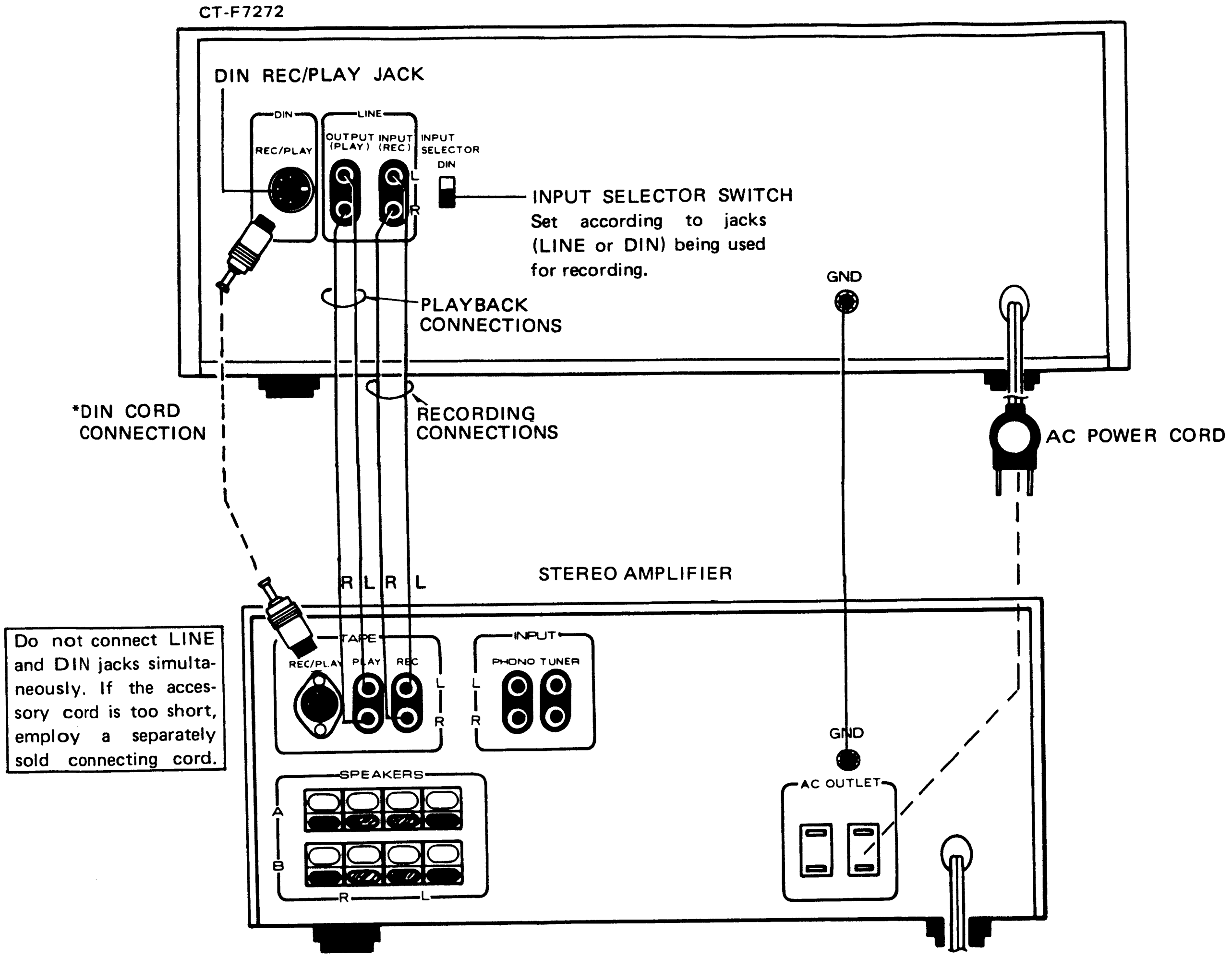
NOTES:
1. *Do not press two or more levers simultaneously, except for the play and REC levers during recording.*
2. *It is not necessary to first press the stop lever when switching between modes.*

MAIN SECTIONS OF TAPE TRANSPORT


ERASE PREVENTING DETECTOR
CASSETTE RETAINER
ILLUMINATING LAMP
GUIDE
POSITIONING PIN
CASSETTE DETECTOR PIN
CASSETTE GUIDE PIN
GUIDE
CAPSTAN
CASSETTE GUIDE PIN
Automatic CrO2 Tape Selector
CASSETTE RETAINING ARM
CASSETTE RETAINING ARM
ERASE HEAD
PINCH ROLLER
RECORD/PLAYBACK HEAD

*Manufactured under license
from Dolby Laboratories Incorporated.
*Dolby and ◻◻ are trademarks of
Dolby Laboratories Incorporated.

3. CONNECTION DIAGRAM


CT-F7272
DIN REC/PLAY JACK
DIN
REC/PLAY
LINE
OUTPUT (PLAY)
INPUT (REC)
INPUT SELECTOR
DIN
L
R
INPUT SELECTOR SWITCH
GND
PLAYBACK CONNECTIONS
*DIN CORD CONNECTION
RECORDING CONNECTIONS
AC POWER CORD
R L R L
STEREO AMPLIFIER
TAPE
REC/PLAY
PLAY
REC
INPUT
PHONO
TUNER
L
R
L
R
GND
AC OUTLET
SPEAKERS
A
B
R
L

Set according to jacks (LINE or DIN) being used for recording.

Do not connect LINE and DIN jacks simultaneously. If the accessory cord is too short, employ a separately sold connecting cord.

INPUT SELECTOR SWITCH OPERATION

Set switch according to program source to be recorded (Fig. 1).

LINE ....Use accessory cords to connect LINE (INPUT) jacks of CT-F7272 to recording output (TAPE REC) jacks of a stereo receiver (or amplifier), then set switch to this position for recording.

DIN.............Use separately sold DIN record/play cord to connect DIN REC/PLAY jack of CT-F7272 to the same type jack (if provided) on a stereo receiver (or amplifier). Then set switch to this position for recording.

NOTE:
If microphones are connected to front panel MIC jacks, a source connected to the LINE (INPUT) or DIN REC/PLAY jacks cannot be recorded.

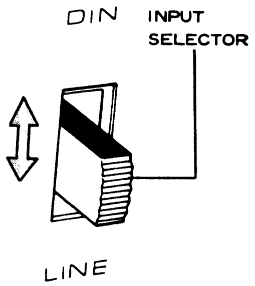
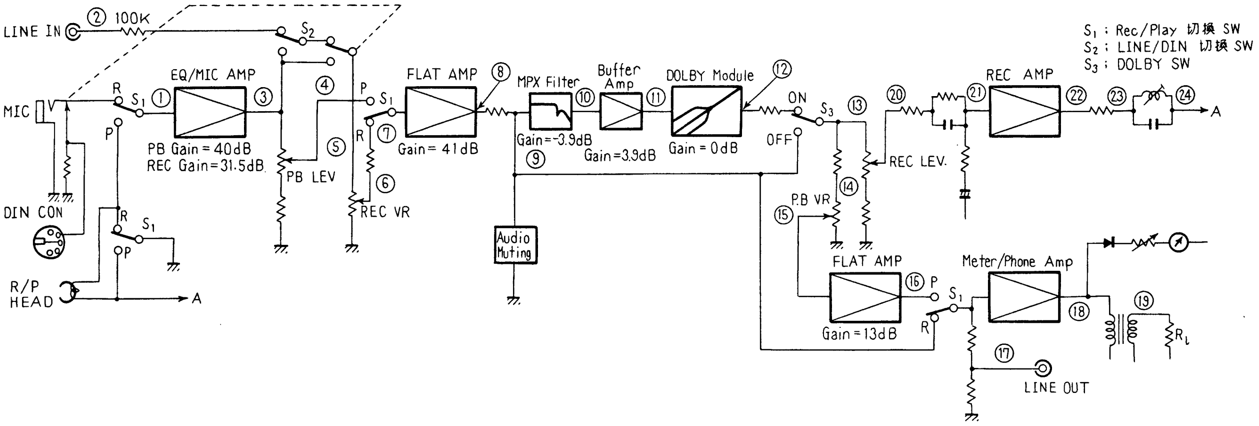
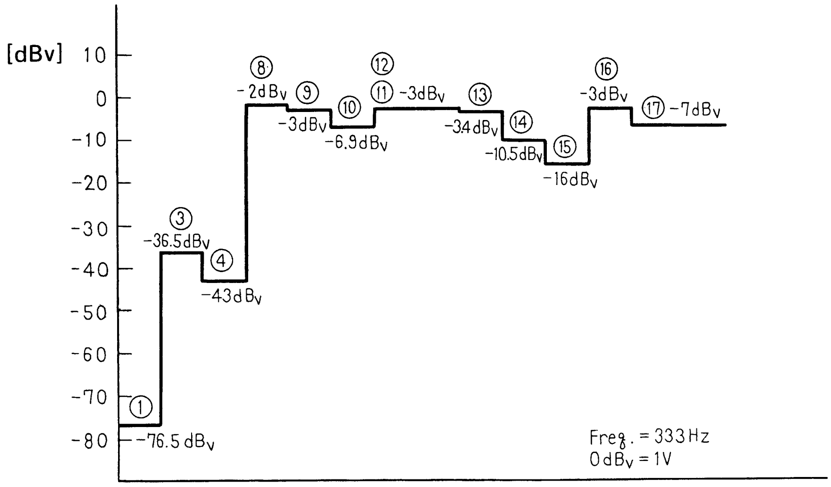

DIN
INPUT SELECTOR
LINE

Fig. 1

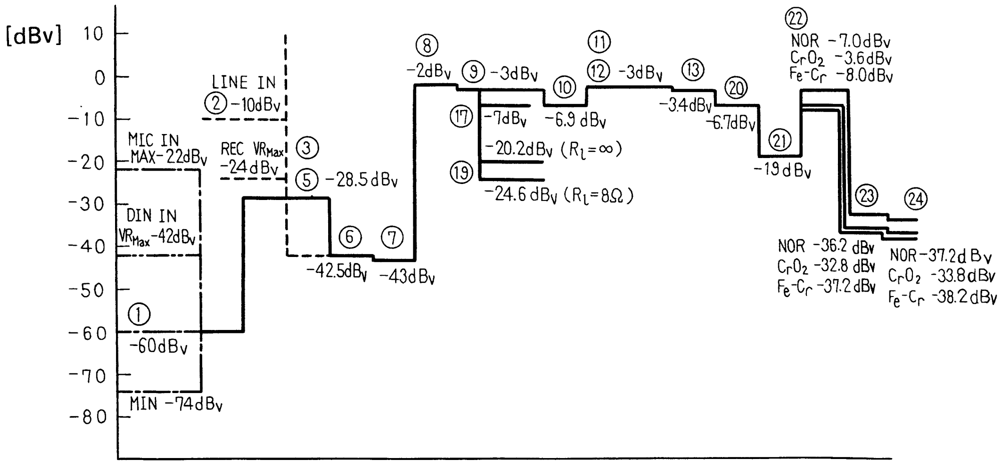
4. LEVEL DIAGRAMS


LINE IN
② 100K
S₂
MIC
R
S₁
①
EQ/MIC AMP
③
④
P
S₁
R
⑦
FLAT AMP
⑧
MPX Filter
⑩
Buffer Amp
⑪
DOLBY Module
⑫
ON
S₃
⑬
⑳
㉑
REC AMP
㉒
㉓
㉔
A
S₁ : Rec/Play 切換 SW
S₂ : LINE/DIN 切換 SW
S₃ : DOLBY SW
PB Gain = 40dB
REC Gain = 31.5dB
PB LEV
⑤
⑥
REC VR
Gain = 41dB
Gain = -3.9dB
⑨
Gain = 3.9dB
Gain = 0dB
OFF
REC LEV.
DIN CON
P
R
S₁
P
Audio Muting
P.B VR
⑮
⑭
FLAT AMP
Gain = 13dB
⑯ P
S₁
R
Meter/Phone Amp
⑱
⑲
R_L
⑰
LINE OUT
R/P HEAD
A

PLAYBACK



RECORDING



5. CIRCUIT DESCRIPTIONS

RECORD AND PLAYBACK CIRCUITS

The block diagram see page 13 shows the circuitry for record/playback (L.ch.). Except for a few sections, record and playback employ the same circuitry.

TAPE SELECTOR

A three-way switch: automatic chrome (CrO_2), Fe-Cr, and normal (STD).

Equalizer Circuit Switching

The low frequency compensation characteristics and the high frequency peaking frequencies of the REC amplifier are switched for recording by the TAPE SELECTOR SW, or the Automatic CrO_2 Tape Selector.

For playback, the playback equalizer compensation characteristics are switched.

Tape Bias Switching

The action of the automatic CrO_2 tape selector changes the voltage level applied to the bias oscillation circuit when recording. This then results in a change of oscillator output, and consequently a change in tape bias.

EQ AMPLIFIER

This 2-stage direct coupled amplifier employing NPN transistors, acts as an equalizer amplifier during playback. During recording, it acts as an ordinary amplifier with flat frequency characteristics.

REC AMPLIFIER

Composed of 4 NPN transistors, with CR-produced compensation in the low frequency region, and electronically switched compensation (by LC) in the high frequency region.

DOLBY MODULE

The CT-F7272 is equipped with the Dolby B-type switchable processor which provides the Dolby effect in the medium and high frequency regions only. The most troublesome tape hiss in tape playback is thus diminished.

When the input signals in the medium and high frequency ranges are below the prescribed level (Dolby level), the recording level is automatically increased, and then automatically reduced again back to the original level during playback. This is accomplished by adding (or subtracting) the output signal of the compressor to the direct signal. During recording, the compressor input is obtained from the input side of amp. 3, while the output is added to the direct signal at amp. 3, producing the required effect.

During playback, the signal is applied to the compressor from the output side of amp. 3, and this signal is of the opposite phase to that applied during recording. Therefore, the compressor output signal will also be of the opposite phase. Consequently, a signal of opposite phase is added to the direct signal, thus resulting in subtraction. The operation is just the opposite to that during recording. (Fig. 2).

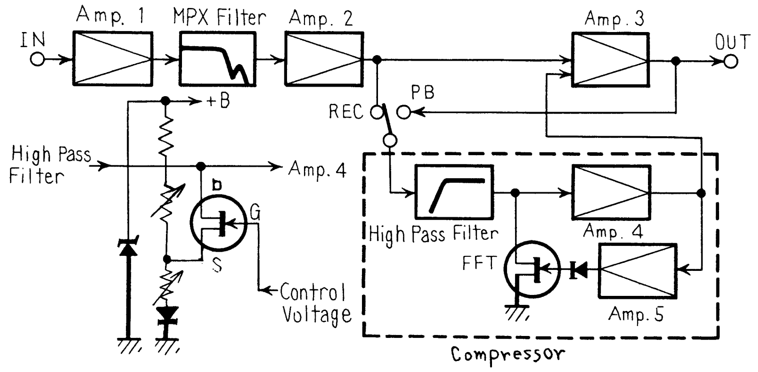


Fig. 2 Block Diagram of the Dolby Module

Compressor

The input signal is first passed through a high-pass filter. Between this filter and amp. 4 is an electronic attenuator which employs an FET. By changing the gate bias of the FET, the impedance between the drain and source can be changed. It is this change in impedance that the FET employs. The potential applied to the FET source is made positive in the first place, so the potential difference between the gate and source will equal the pinch-off potential, thus making the FET impedance extremely high. The control voltage, which is rectified upon return of the signal, can then be applied to the FET gate.

If the input signal is weak, the control voltage applied to the FET gate is reduced, thus maintaining the high impedance between the drain and source. Consequently, the amount of attenuation at the electronic attenuator is small, making the compressor output large.

When the input signal is strong, however, a high control voltage is produced, and the impedance between the FET drain and source is reduced almost to zero. Therefore, the electronic attenuator produces a high attenuation, making the compressor output small.

AUTO STOP

During tape transport, the S8-2 switch (PLAY) is ON, the S9 switch (MUTING) is OFF and the S13 switch (PAUSE) is OFF.

The action of the tape transport also rotates the hole sensing switch which consequently supplies the base of Q601 with a signal shown in Fig. 3-C. Therefore, Q601 is repeatedly turned ON and OFF, supplying a base bias via C604, D602, D603, and R607, to Q602 which is also turned ON and OFF repeatedly. The voltage difference between the collector and emitter of Q602 varies during this period in a fashion shown in Fig. 3-D.

If the tape transport then stops, the voltage shown in Fig. 3-C will cease, cutting off the base bias to Q602. Q602 is thus turned OFF. C606 will charge up in the same way as for auto start due to +B2. When its potential reaches a particular level (see Fig. 3-E), Q603 will be turned ON, followed by Q604 and Q605.

When Q605 is thus turned ON, +B2 flows through S8-2, S9, S13, D608, P601 and Q605, activating the auto stop solenoid (P601), and bringing the tape transport to a halt.

MEMORY REWIND

S12 comes ON when the MEMORY switch is turned ON.

S11 comes ON when the REW lever is depressed.

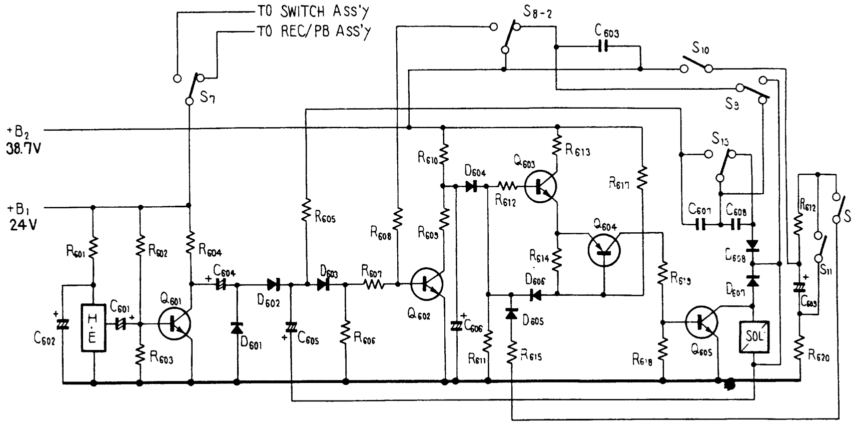
S10 is the counter switch, and comes ON when the tape counter indicates "999".

When the MEMORY switch is turned ON, and the transport mode put into rewind, S10 will come on immediately when the tape counter reaches "999". In the same instant, there is a sudden change of polarity produced on C609. This rapid change is differentiated, and applied as a trigger pulse to the base of Q603 in the auto stop circuit, thus turning Q604 and Q605 ON as well. A current then flows through the solenoid, releasing the rewind lever, and bringing tape transport to a halt again.

POWER SUPPLY CIRCUIT

The CT-F7272 employs a DC motor which requires a power supply independent from the amplifier. This is supplied by separate coils in the transformer. In the amplifier the ripple component is eliminated, and the stability of the supply improved, by a transistor and zener diode combination.

S8-1 can only be turned ON by depressing the FF, REW, or PLAY levers.


TO SWITCH ASS'Y
TO REC/PB ASS'Y
S7
S8-2
C603
S10
S9
S13
S12
S11
+B2 38.7V
+B1 24V
R601
R602
R603
R604
R605
R606
R607
R608
R609
R610
R611
R612
R613
R614
R615
R617
R618
R619
R620
C601
C602
C604
C605
C606
C607
C608
C609
D601
D602
D603
D604
D605
D606
D607
D608
Q601
Q602
Q603
Q604
Q605
H·E
SOL

S_7	CHROME TAPE DETECTOR	(NO HOLE – HOLE)
S_8	PLAY	(OFF — ON)
S_9	MUTING	(OFF — ON)
S_{10}	COUNTER	(OFF — ON)
S_{11}	REW	(OFF — ON)
S_{12}	MEMORY	(OFF — ON)
S_{13}	PAUSE	(OFF — ON)

Fig. 3-A

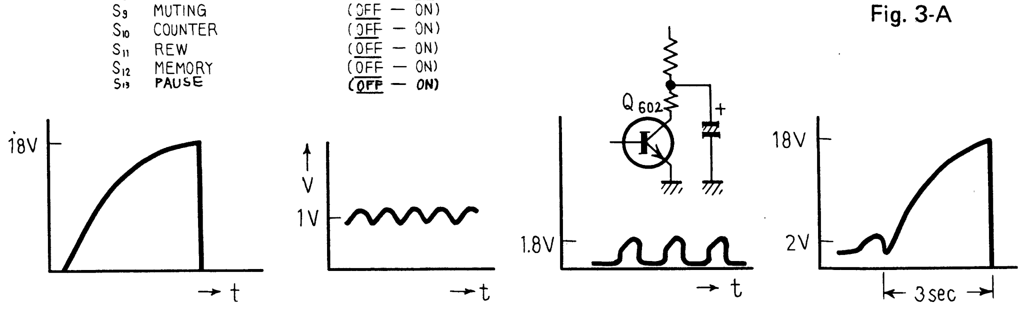


Fig. 3-B

Fig. 3-C

Fig. 3-D

Fig. 3-E

Fig. 3

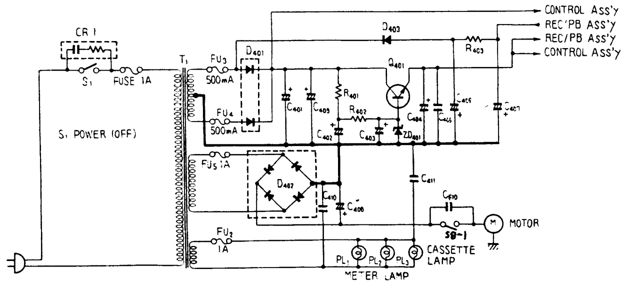
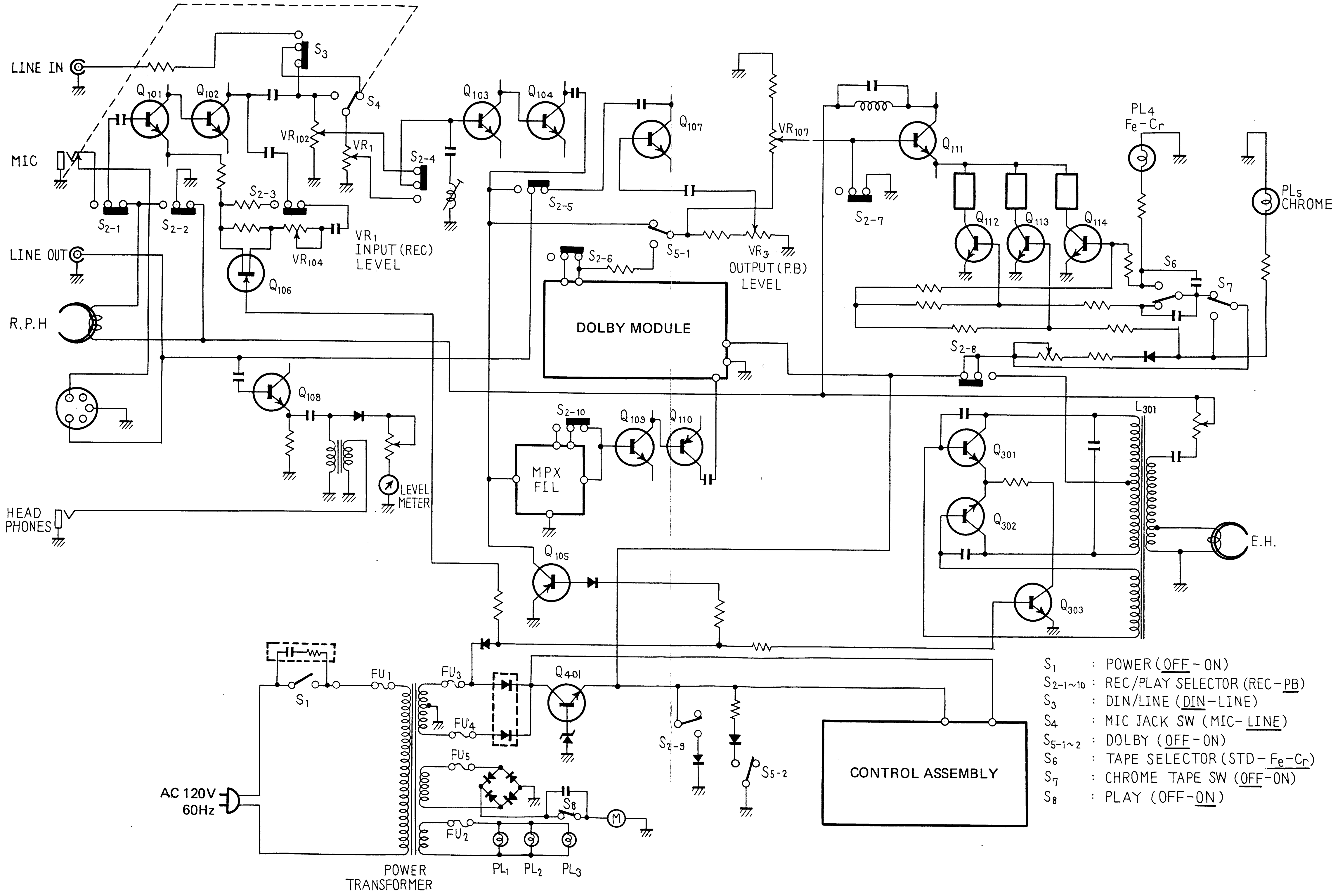

CR 1
S1
FUSE 1A
S1 POWER (OFF)
T1
FU3 500mA
FU4 500mA
FU5 1A
FU2 1A
D401
D402
D403
Q401
R401
R402
R403
C401
C402
C403
C404
C405
C406
C407
C408
C409
C410
C411
C610
ZD401
CONTROL ASS'Y
REC/PB ASS'Y
REC/PB ASS'Y
CONTROL ASS'Y
S8-1
MOTOR
PL1
PL2
PL3
CASSETTE LAMP
METER LAMP

Fig. 4

6. BLOCK DIAGRAM


LINE IN
MIC
LINE OUT
R.P.H
HEAD PHONES
Q101
Q102
Q103
Q104
Q106
Q107
Q108
Q109
Q110
Q105
Q111
Q112
Q113
Q114
Q301
Q302
Q303
Q401
S3
S4
S2-1
S2-2
S2-3
S2-4
S2-5
S2-6
S2-7
S2-8
S2-9
S2-10
S5-1
S5-2
S6
S7
S8
S1
VR102
VR1
VR104
VR1 INPUT (REC) LEVEL
VR107
VR3
OUTPUT (P.B) LEVEL
DOLBY MODULE
MPX FIL
LEVEL METER
PL4 Fe-Cr
PL5 CHROME
L301
E.H.
FU1
FU2
FU3
FU4
FU5
AC 120V 60Hz
POWER TRANSFORMER
PL1
PL2
PL3
M
CONTROL ASSEMBLY

S_1 : POWER (OFF - ON)

$S_{2-1\sim10}$: REC/PLAY SELECTOR (REC - PB)

S_3 : DIN/LINE (DIN - LINE)

S_4 : MIC JACK SW (MIC - LINE)

$S_{5-1\sim2}$: DOLBY (OFF - ON)

S_6 : TAPE SELECTOR (STD - Fe - Cr)

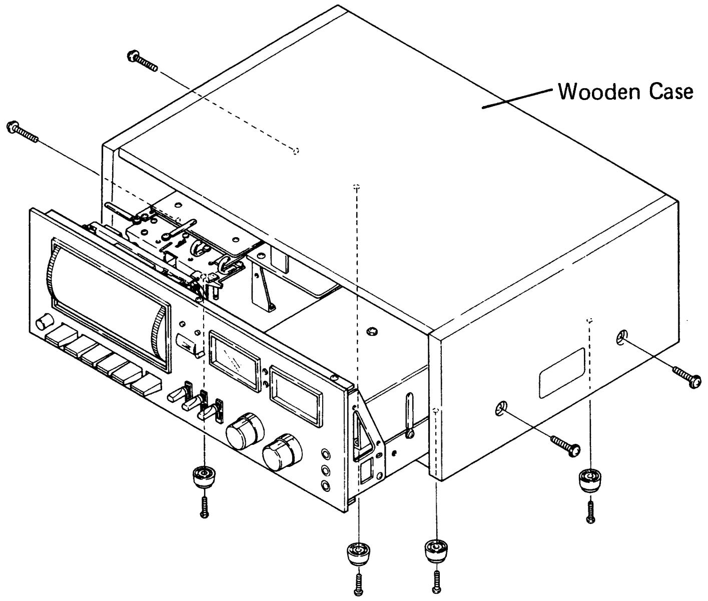
S_7 : CHROME TAPE SW (OFF - ON)

S_8 : PLAY (OFF - ON)

7. DISASSEMBLY

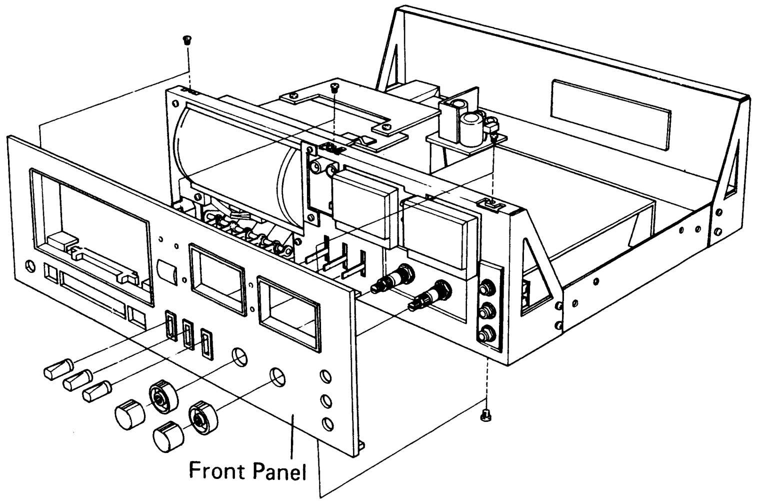
CABINET

The cabinet can be removed by taking out 4 cabinet retaining screws and the 4 foot pad retaining screws on the bottom plate. When reattaching it, ensure that there is no gap between the cabinet and the front panel.


Wooden Case

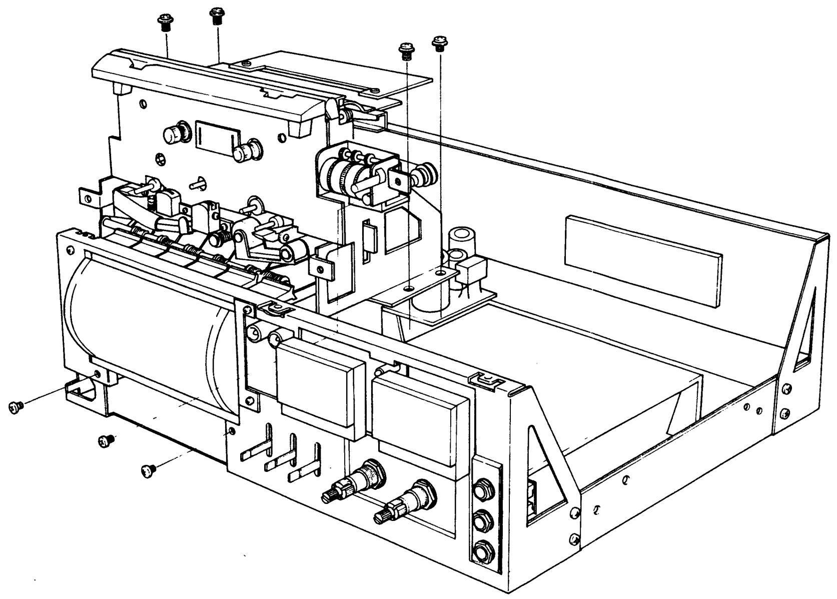
FRONT PANEL

1. Remove the knobs and switches as shown in the diagram.
2. Remove the 6 screws securing the front panel.
3. Gently remove the front panel, taking care not to scratch or damage it.

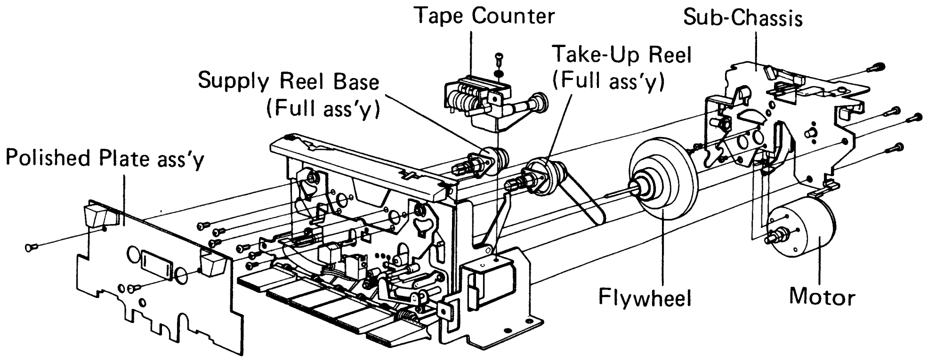

Front Panel

TRANSPORT MECHANISM CHASSIS

1. The lead wire from the head has been soldered on, but should not be disconnected except when exchanging heads.
2. Remove the 7 screws securing the chassis, and then gently lift out.

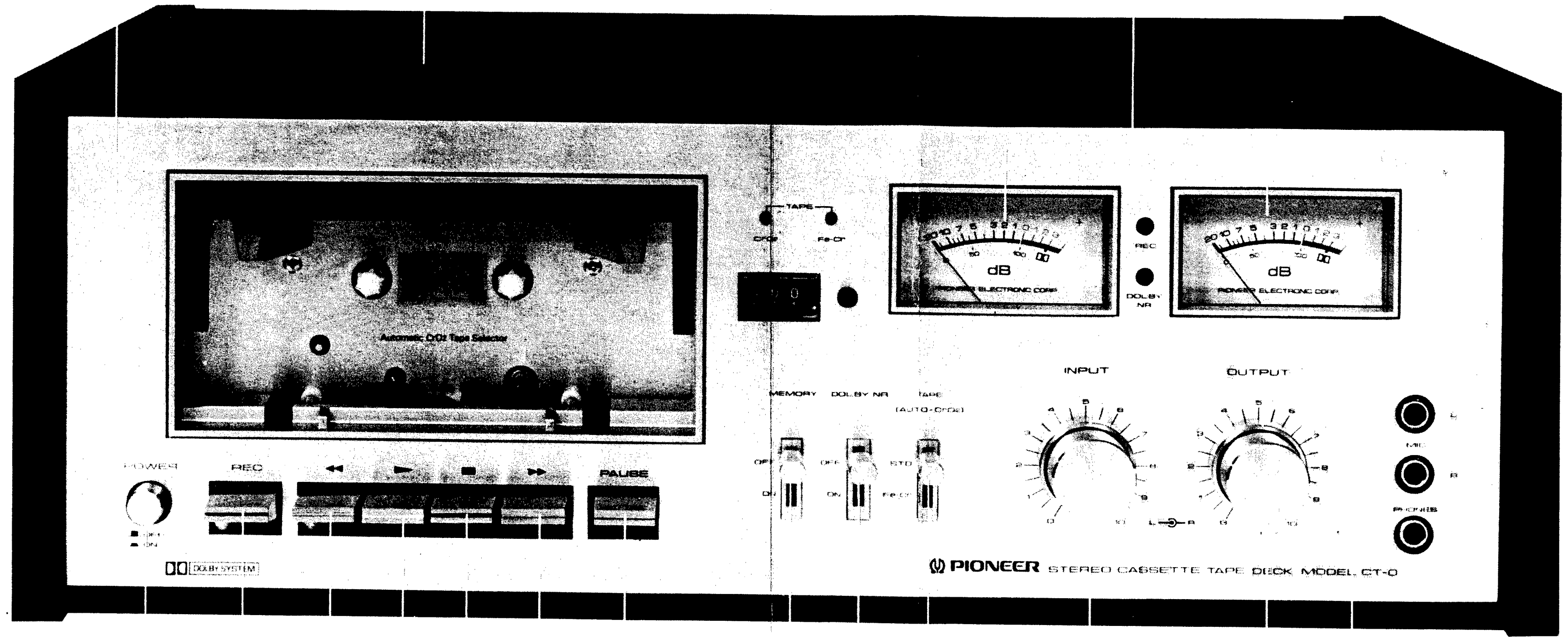


TRANSPORT MECHANISM


Tape Counter
Sub-Chassis
Take-Up Reel
(Full ass'y)
Supply Reel Base
(Full ass'y)
Polished Plate ass'y
Flywheel
Motor

8. PARTS LOCATIONS

8.1 FRONT VIEW


TAPE
REC
PAUSE
DOLBY NR
MEMORY
INPUT
OUTPUT
dB
PIONEER STEREO CASSETTE TAPE DECK

Wooden case
RMM-032

Front panel
RAH-161

Level meter
RAW-047

Knob
RAA-092

Knob (D)
RNK-283

Knob (A)
RNK-280

Knob (B)
RNK-281

Knob (C)
RNK-282

Knob (A)
RNK-280

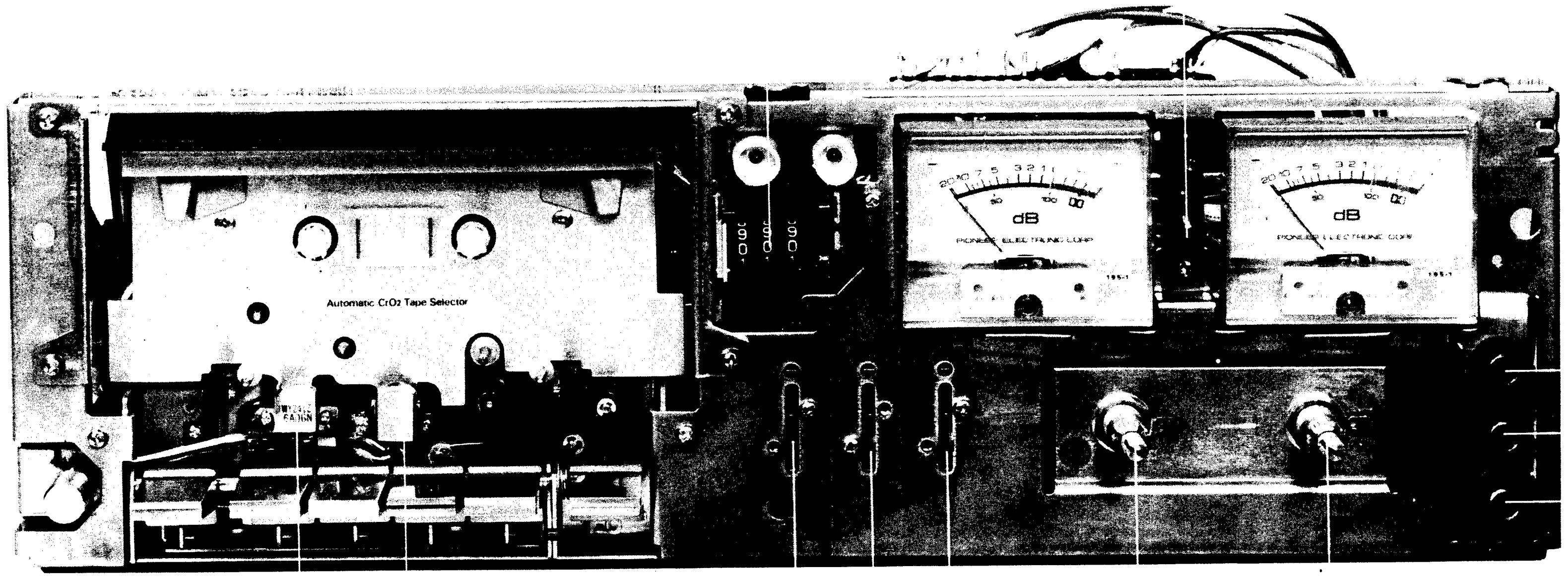
Knob (A)
RNK-280

Knob
RAA-154

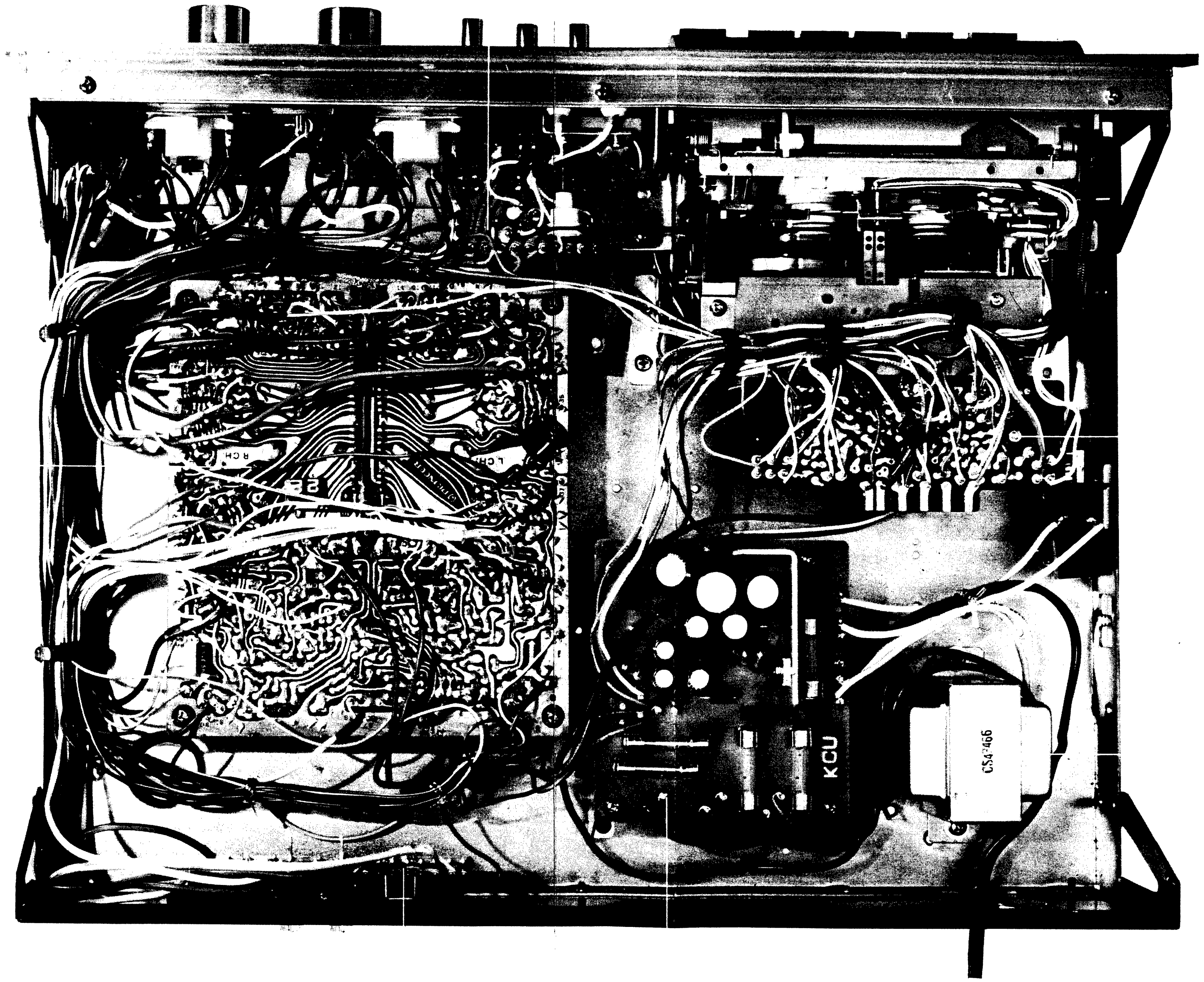
Knob
RAA-153

Knob
RAA-157

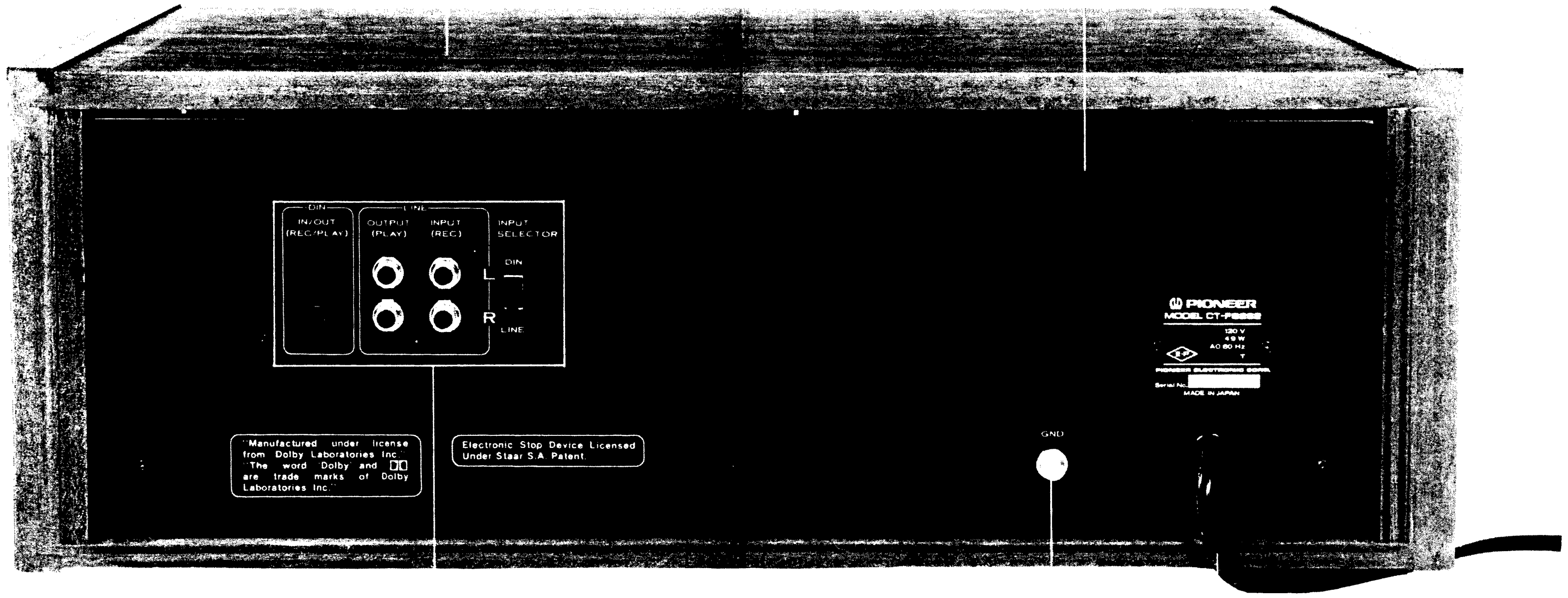
8.2 FRONT VIEW WITH PANEL REMOVED


Counter
RAW-045
Power switch
RSA-016
Erase head
RPB-014
REC/PB head
RPB-037
Indicator assembly
RWX-130
Phone jack (MIC)
RKN-031
Phone jack (HEADPHONES)
RKN-032
Variable resistor (OUTPUT)
RCV-030
Variable resistor (INPUT)
RCV-029
Switch assembly
RWS-044
Automatic CrO2 Tape Selector
dB

8.3 TOP VIEW


Switch assembly
RWS-044
REC/PB amplifier assembly
RWF-056
Jack Assembly
RWX-128
Control assembly
RWG-062
Power transformer
RTT-097
Power supply assembly
RWR-035

8.4 REAR VIEW


DIN
IN/OUT (REC/PLAY)
LINE
OUTPUT (PLAY)
INPUT (REC)
INPUT SELECTOR
DIN
LINE
L
R
"Manufactured under license from Dolby Laboratories Inc. "The word Dolby and ▯▯ are trade marks of Dolby Laboratories Inc."
Electronic Stop Device Licensed Under Staar S.A. Patent
GND
PIONEER
MADE IN JAPAN

Wooden case
RMM-032

Rear panel assembly

Jack assembly
RWX-128

Power cord
RDG-013

Binding post
B11-012

9. ELECTRICAL ADJUSTMENTS

Use STD-341 as the test tape for adjustments, and STD-331 for checking frequency characteristics.

PLAYBACK SYSTEM

ADJUSTMENT OF HEAD AZIMUTH

1. Turn the output level control VR3, VR4 up to maximum level, and connect a millivoltmeter to the OUTPUT terminals.
2. Set the tape selector switch to the STD position.
   Playback the 10kHz signal of the STD-341 tape with the output of both L and R channels set to the maximum level. Then find the optimum head azimuth.
3. Be sure to fasten the screw with locktight after completing this adjustments.

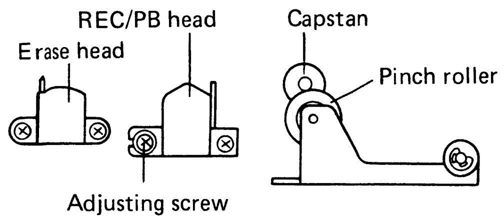


Fig. 5

ADJUSTMENT OF PLAYBACK EQUALIZER CIRCUIT

1. Set the tape selector switch to the STD position.
   Set the semi-fixed potentiometers VR101, VR201 for playback level adjustment to more or less a central position.
2. Playback 333Hz/—20dB from the STD-341 tape, with the output level control VR3, VR4 adjusted so that the output at the OUTPUT terminals is —30dBv (31.6mV).
3. Then playback 6.3kHz/—20dB from the STD-341 tape, and adjust the EQ adjustment potentiometers VR102, VR202, so that the OUTPUT level is —29.5dBv (33.5mV).
4. Now set the tape selector switch to Fe-Cr, and playback the same 6.3kHz/—20dB. In this condition the output level should be 18mV ±3mV.

ADJUSTMENT OF PLAYBACK LEVEL

1. Connect a millivoltmeter to output terminals Nos. 57 and 58 of the REC/P.B. amplifier assembly.
2. Set the DOLBY NR switch to ON. Playback 333Hz/0dB from the STD-341 tape, and adjust VR101, VR201 to give a reading of 0.6dBv (1.07V) on the millivoltmeter.

Note: This is a very important adjustment since it determines the playback Dolby level.

RECORDING SYSTEM

ADJUSTMENT OF LEVEL METERS

1. Apply the 333Hz/—10dBv (316mV) signal at the INPUT terminals, and set the deck at recording mode.
2. Adjust the input level control VR1, VR2 so that the output level at the output terminals Nos. 57 and 58 of the REC/P.B. amplifier assembly is —3.4dBv (676mV).
3. Then adjust VR103, VR203 so that the level meter reads 0VU.

ROUGH ADJUSTMENT OF RECORDING CURRENT

1. Apply the 333Hz/—10dBv (316mV) signal at the INPUT terminals, and set the deck at recording mode.
2. Adjust the input level control to give —7dBv (447mV) at the OUTPUT terminals.
3. Connect a millivoltmeter across No. 1 — No. 3 and No. 2 — No. 4 of the REC/P.B. amplifier assembly.
4. Set the tape selector switch to the STD position, and then adjust VR104, VR204 to give a 0.48mV reading in the millivoltmeter.

NOTE: Connect the set by depressing the record lever and jumpering No. 51 of the REC/P.B. amplifier assembly to ground.

ROUGH ADJUSTMENT OF RECORDING BIAS

1. Put the deck into the recording mode, and turn the input level control down to the minimum position.
2. Set the tape selector switch to the STD position.
3. Connect a millivoltmeter across No. 1 — No. 3 and No. 2 — No. 4 of the REC/P.B. amplifier assembly, and adjust VR105, VR205 to give a millivoltmeter reading of 1.5mV.

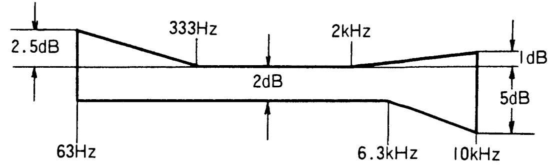
ADJUSTMENT OF BIAS TRAP

1. Put the deck into the recording mode, and turn the input level control up to its maximum position (no signal input).
   Connect a millivoltmeter and an oscilloscope across test points No. 83 and No. 84 of the REC/P.B. amplifier assembly, and adjust L104, L204 to produce a wave form of the smallest possible amplitude.
2. Connect the millivoltmeter across the OUTPUT terminals.
3. Adjust L101, L201 to give the smallest bias leakage level. Then switch the input level control from minimum to maximum positions and check that the leakage level is less than —45dBv (5.6mV).
4. Switch the recording input to DIN, and recheck as described above.

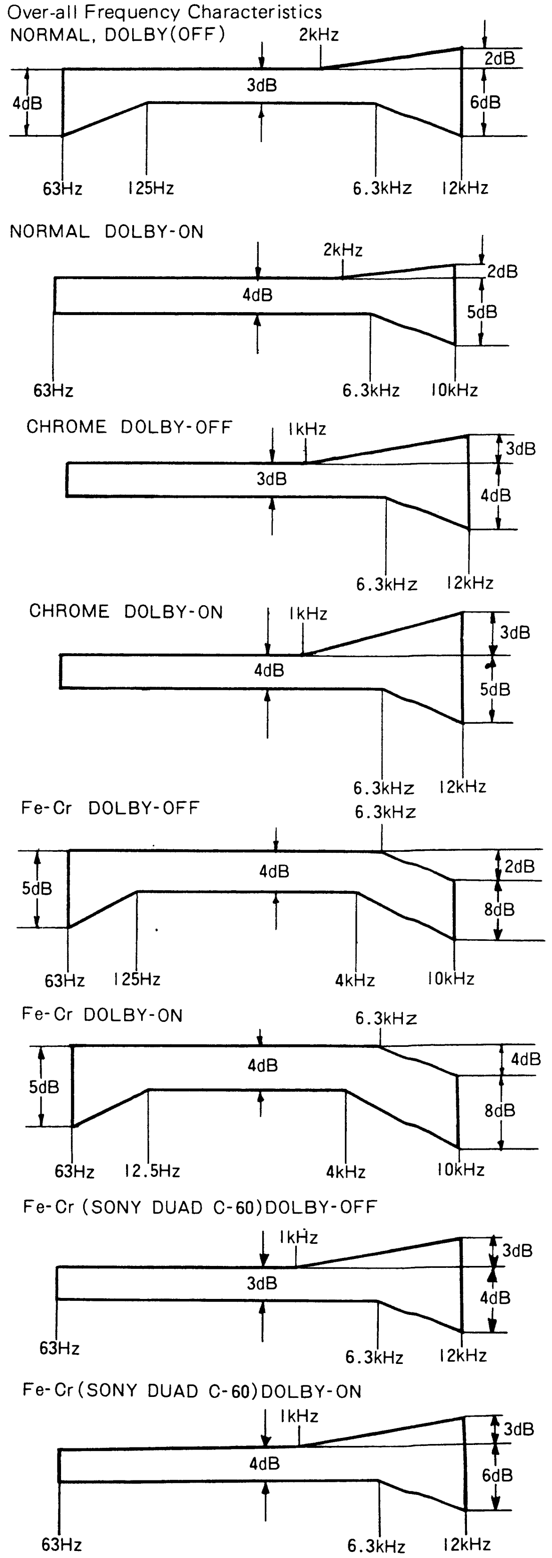
ADJUSTMENT OF FREQUENCY CHARACTERISTICS FOR RECORDING AND PLAYBACK

1. Set the tape selector switch to the STD position, and the DOLBY NR switch to OFF.
2. Apply the 333Hz/—30dBv (31.6mV) signal to the INPUT terminals, and put the deck into the recording mode. Adjust the input level control to give —27dBv (44.7mV) at the OUTPUT terminals.
3. Record the 333Hz signal on the STD-601 tape.
4. Then record the 6.3kHz signal, and adjust VR105, VR205 so that the playback output level deviation from the 333Hz signal is +0.5dB.
5. Now record up to 12kHz, and check that each playback level conforms with the specifications. If levels do not conform, readjust VR105, VR205 to within 0dB $^{+1}_{-0.5}$ dB.
6. Use the STD-602 (CrO_2) tape, and record the 333Hz and 6.3kHz signals. Adjust VR301 so that playback output level of the 6.3kHz signal deviates from the 333Hz signal by +0.5±1dB.
7. Set the tape select switch to the Fe-Cr position, and record the various frequencies on the STD-601 tape. Check that all playback levels conform to the specifications.
8. Set the DOLBY NR switch ON, and recheck as described in the preceeding paragraphs.

Playback Frequency Characteristics



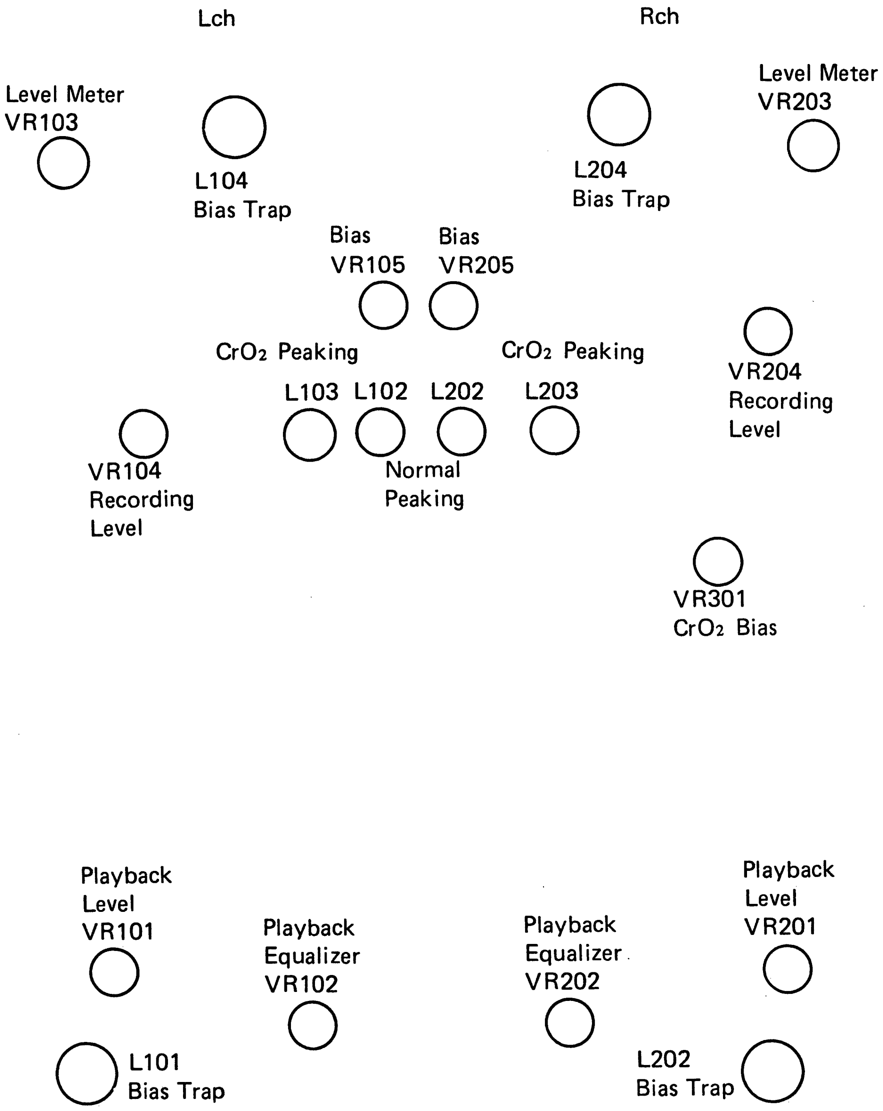
Over-all Frequency Characteristics



ADJUSTMENT OF RECORDING LEVEL

1. Set the tape selector switch to the STD position, and the DOLBY NR switch to ON.
2. Apply the 333Hz/—10dBv (316mV) signal to the INPUT terminals, and connect a millivoltmeter across output terminals No. 57 and No. 58 of the REC/P.B. amplifier assembly. Adjust input level control. So that the output level at the output terminals is —3.4dBv (676mV).
3. Record the 333Hz/—10dBv (316mV) signal on the STD-601 tape. Adjust VR104, VR204 so that the playback output level reads —3.4dBv (676mV) between the output terminals No. 57 and No. 58 of the REC/P.B. amplifier assembly.
4. Then record the 333Hz/—10dBv (316mV) signal on the STD-602 tape, and check that the playback level reads —1.9dBv to —4.9dBv (569mV to 804mV) across the output terminals No. 57 and No. 58.

The Location of Adjustment Points


Lch
Rch
Level Meter
VR103
L104
Bias Trap
L204
Bias Trap
Level Meter
VR203
Bias
VR105
Bias
VR205
CrO₂ Peaking
CrO₂ Peaking
L103
L102
L202
L203
VR204
Recording
Level
VR104
Recording
Level
Normal
Peaking
VR301
CrO₂ Bias
Playback
Level
VR101
Playback
Equalizer
VR102
Playback
Equalizer
VR202
Playback
Level
VR201
L101
Bias Trap
L202
Bias Trap

10. MECHANICAL ADJUSTMENTS

PINCH ROLLER PRESSURE

1. Refer to page 15 for the method of disassembly of the various parts, and remove the mechanism chassis assembly.
2. Set the deck into the play mode. Press a 500g tension gauge against the measuring position, and disengage the pinch roller by 1 or 2mm from the capstan. When the pinch roller is then allowed to re-engage the capstan, and the pinch roller commences to rotate, the value should be between 280 to 360g.
3. If the measured value does not lie within this range, readjust the tension in the pinch arm spring.

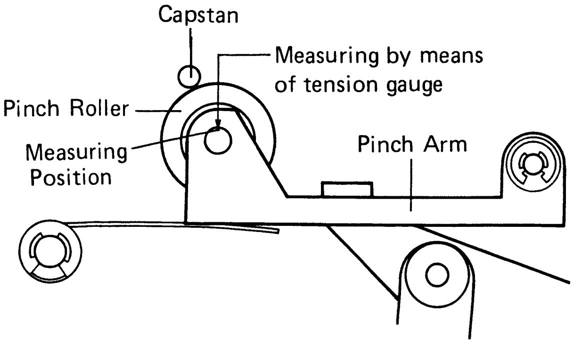

Capstan
Measuring by means of tension gauge
Pinch Roller
Measuring Position
Pinch Arm

Fig. 6

REEL BASE TORQUE

If the torque values lie outside the allowable ranges shown in the table, clean all contacting parts such as idler, reel bases, and other rollers, and remeasure the torque.
If the results are still outside the allowable range, replace the supply reel base or the take-up reel base.

Torque Values for Each Reel Base

Take-up Reel Base	
PLAY take-up torque	40 ~ 65g.cm.
FF take-up torque	75 ~ 130g.cm.
REW back tension torque	less than 5g.cm.

Supply Reel Base	
PLAY back tension torque	less than 6g.cm.
REW take-up torque	75 ~ 130g.cm.

ADJUSTMENT OF TAPE SPEED

1. Insert a flat-bladed screw driver into the hole at the rear of the capstan motor, and adjust the semi-fixed resistor.
2. Tape speed is increased by turning the screw anti-clockwise, and decreased by turning clockwise. (See Fig. 7).

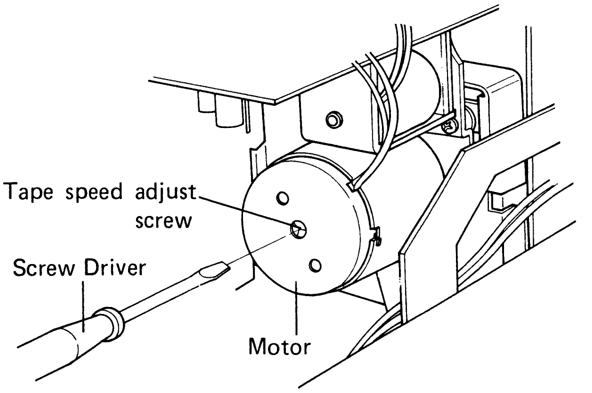

Tape speed adjust screw
Screw Driver
Motor

Fig. 7

ADJUSTMENT OF PLAY TIMING

1. Depress the PAUSE lever when the deck is in up reel base starts to rotate, the gap between the pinch roller and capstan should be no more than 0.5mm. (See Fig. 8).
2. If the gap is larger, insert a flat-bladed screwdriver, shown in the diagram, and bend the part in contact with the pinch arm of the head base up and down.

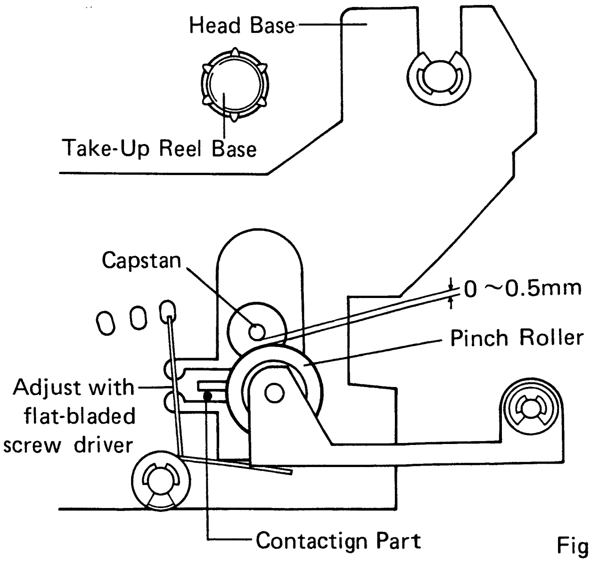

Head Base
Take-Up Reel Base
Capstan
0 ~0.5mm
Pinch Roller
Adjust with flat-bladed screw driver
Contactign Part

Fig. 8

WOW AND FLUTTER

Uneven rotation can be caused by any of the following items. Check each item, and clean, or readjust, or replace as is deemed necessary.

1. Bending, vibration, or soiling of the capstan.
2. Flywheel thrust axial play.
3. Soiling or deterioration of capstan belt.
4. Soiled pinch roller, or incorrect engage pressure.
5. Soiled take-up idler, or incorrect engage pressure or eccentricity.
6. Unstable take-up reel base torque.
7. Unstable or incorrect back tension torque.
8. Unstable torque in sensing switch or counter.
9. Faulty or inferior cassette tape.

ADJUSTMENT OF PAUSE TIMING

1. Depress the PAUSE lever when the deck is in the play mode, and then gently release it. The gap between the pinch roller and capstan should be no wider than 0.1mm when the reel base commences to rotate. (See Fig. 9).
2. If the gap is larger, adjust by bending the part in contact with the pause arm of the pause action plate, in the direction which the pause action plate moves.
3. After making this adjustment, put the deck into the play mode again, and check that there is gap either between the pinch arm 3R part and the bent-over part of the pause arm, or between the pause action plate and the contact part of the pause arm when the bent-over part of the pause arm makes contact with the pinch arm 3R part.

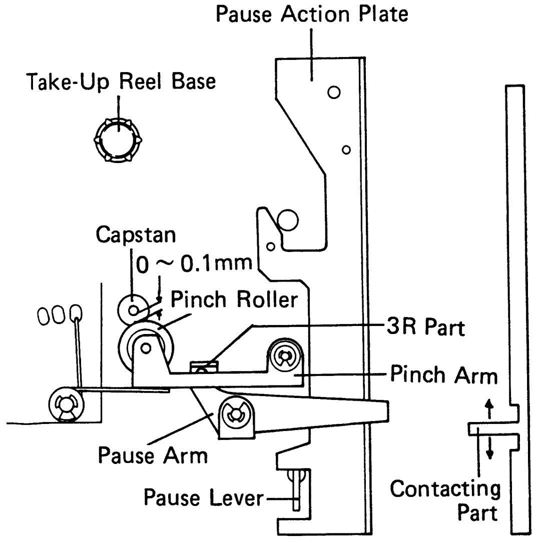

Pause Action Plate
Take-Up Reel Base
Capstan
0 ~ 0.1mm
Pinch Roller
3R Part
Pinch Arm
Pause Arm
Pause Lever
Contacting Part

Fig. 9

ADJUSTMENT OF MOTOR SWITCH ACTION

1. Put the deck into the stationary condition (and with the brake action plate in the off position).
2. There should be a small gap (g) between the bent-over part of the brake action plate and the motor switch separator (usually about 0.05 ~ 0.15mm).
3. If the gap is too large or too small, insert a flat-bladed screw driver into the groove in the motor switch bracket, and swing it back and forth a few times (see Fig. 10).

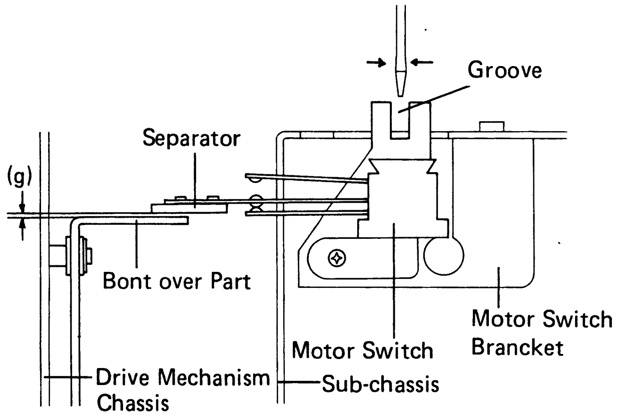

Groove
Separator
(g)
Bont over Part
Motor Switch Brancket
Motor Switch
Drive Mechanism Chassis
Sub-chassis

Fig. 10

ADJUSTMENT OF MUTING SWITCH ACTION

1. Set the deck into the PLAY mode (with the muting switch operation completed).
2. When the PLAY lever is depressed, the action will also depress the muting switch separator. As a result, the separator should have moved the fixed side B by $1^{+0.5}_{-0.3}$ mm (See Fig. 11).
3. If the movement is greater or smaller, insert a screwdriver into the groove in the switch holder, and swing it up and down several times.

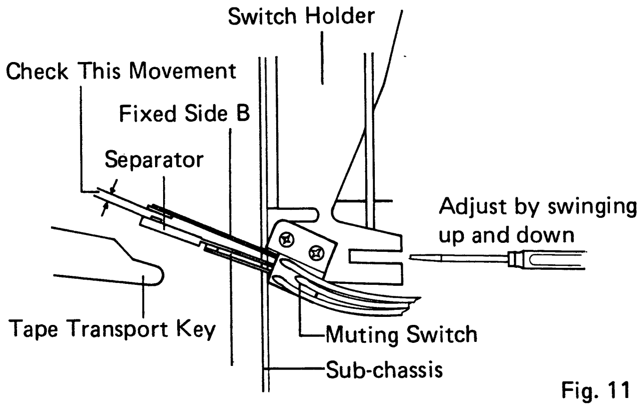

Switch Holder
Check This Movement
Fixed Side B
Separator
Adjust by swinging up and down
Tape Transport Key
Muting Switch
Sub-chassis

Fig. 11

REPLACEMENT OF TAPE TRANSPORT KEYS

1. Remove the front panel as shown in section 7.
2. Using a drier or any other suitable heating apparatus, heat the lever to be replaced, taking care to avoid heating other levers as much as possible.
3. The bonding agent starts to soften under heat, so pull firmly on the relevant lever after sufficient heating.
4. Paste a suitable amount of Bond 575 (or equivalent material) onto the replacement lever, and reinsert as firmly as possible.

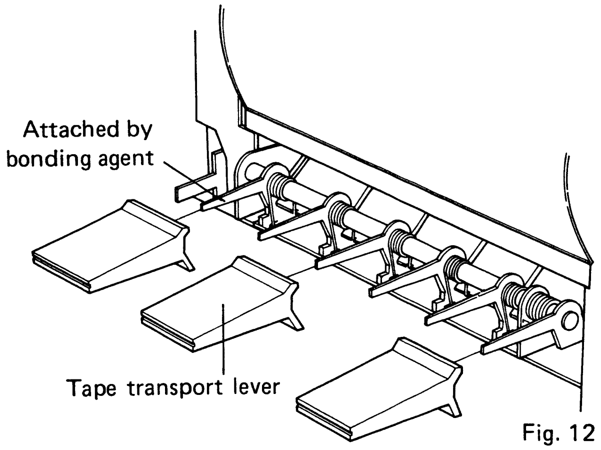
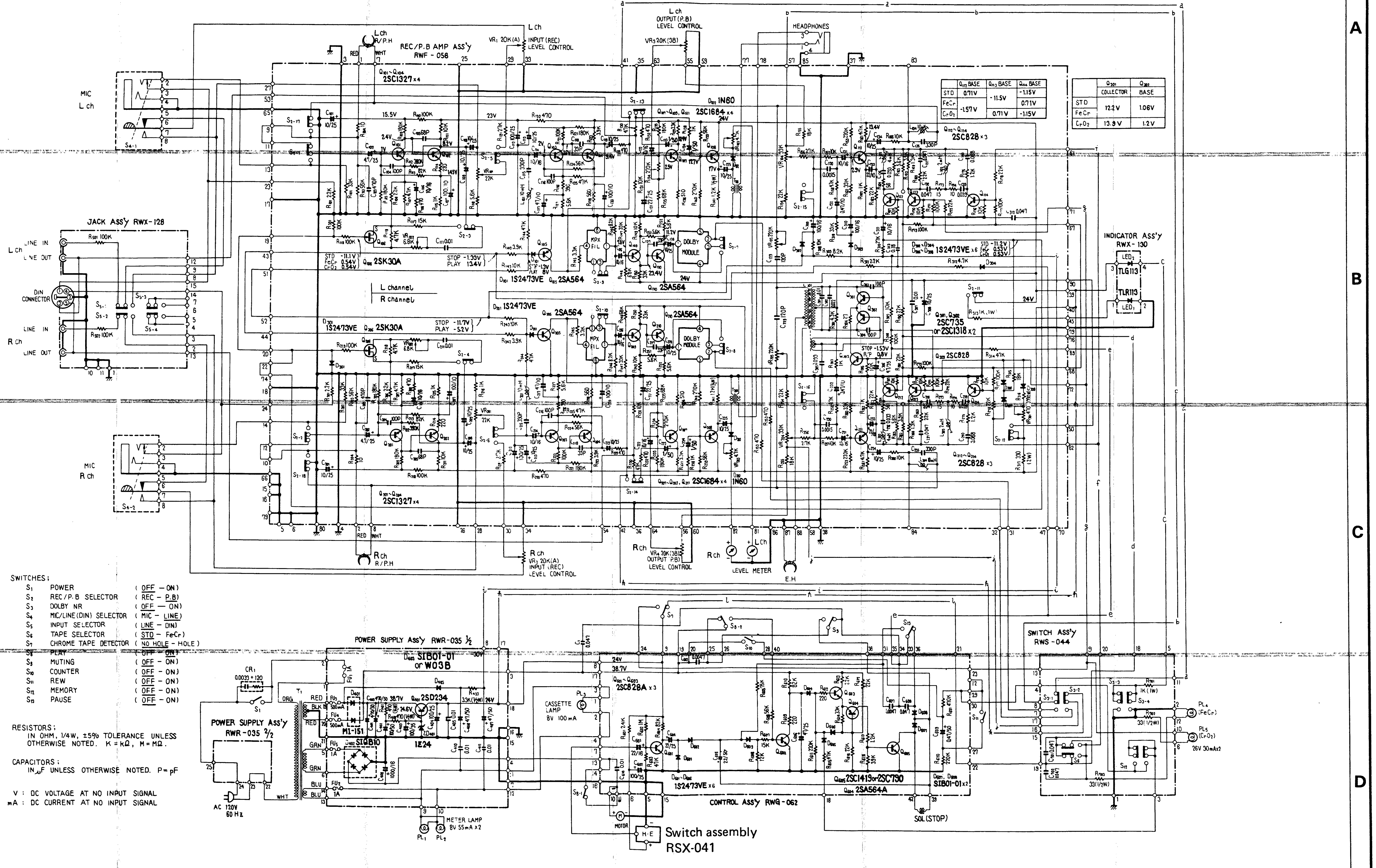

Attached by bonding agent
Tape transport lever

Fig. 12

11. SCHEMATIC DIAGRAMS P.C.BOARD PATTERNS AND PARTS LIST

11.1 SCHEMATIC DIAGRAM


1
2
3
4
5
6
A
B
C
D
MIC L ch
MIC R ch
S4-1
S4-2
JACK ASS'Y RWX-128
L ch LINE IN
LINE OUT
DIN CONNECTOR
R ch LINE IN
LINE OUT
L ch R/P.H
REC/P.B AMP ASS'Y RWF-056
Q101~Q104 2SC1327×4
Q201~Q204 2SC1327×4
L ch VR1 20K(A) INPUT (REC) LEVEL CONTROL
R ch VR2 20K(A) INPUT (REC) LEVEL CONTROL
L ch OUTPUT (P.B) LEVEL CONTROL VR3 20K(3B)
R ch VR4 20K(3B) OUTPUT (P.B) LEVEL CONTROL
HEADPHONES
D101 1N60
D201 1N60
Q105~Q108, Q111 2SC1684×4
Q205~Q208, Q211 2SC1684×4
Q112~Q114 2SC828×3
Q212~Q214 2SC828×3
Q109 2SK30A
Q209 2SK30A
Q110 2SA564
Q210 2SA564
D301~D306 1S2473VE×6
DOLBY MODULE
MPX FIL
L channel
R channel
STD -11.1V FeCr 0.54V CrO2 0.54V
STOP -13.3V PLAY 13.4V
STOP -11.7V PLAY -5.2V
STOP -15.3V P.P 9.8V
Q301, Q302 2SC735 or 2SC1318×2
Q303 2SC828
INDICATOR ASS'Y RWX-130
LED1 TLG113
LED2 TLR113
R ch L ch LEVEL METER
E.H
POWER SUPPLY ASS'Y RWR-035 1/2
POWER SUPPLY ASS'Y RWR-035 2/2
D601 SIB01-01 or W03B
Q601 2SD234
D602 SIQB10
M1-151
1E24
AC 120V 60Hz
CR1 0.0033+120
S1
CASSETTE LAMP 8V 100mA
METER LAMP 8V 55mA×2
PL1
PL2
PL3
Q501~Q503 2SC828A×3
D501~D506 1S2473VE×6
Q505 2SC1419 or 2SC790
Q504 2SA564A
D507, D508 SIB01-01×2
CONTROL ASS'Y RWG-062
SOL (STOP)
MOTOR
Switch assembly RSX-041
SWITCH ASS'Y RWS-044
PL4 (FeCr)
PL5 (CrO2)
26V 30mA×2

	Q112 BASE	Q113 BASE	Q114 BASE
STD	0.71V	-11.5V	-1.15V
FeCr	-1.57V		0.71V
CrO2		0.71V	-1.15V

	Q301	Q302
	COLLECTOR	BASE
STD	12.2V	1.06V
FeCr		
CrO2	13.9V	1.2V

SWITCHES;

S_1	POWER	(OFF — ON)
S_2	REC/P.B SELECTOR	(REC – P.B)
S_3	DOLBY NR	(OFF — ON)
S_4	MIC/LINE(DIN) SELECTOR	(MIC – LINE)
S_5	INPUT SELECTOR	(LINE – DIN)
S_6	TAPE SELECTOR	(STD – FeCr)
S_7	CHROME TAPE DETECTOR	(NO HOLE – HOLE)
S_8	PLAY	(OFF – ON)
S_9	MUTING	(OFF – ON)
S_{10}	COUNTER	(OFF – ON)
S_{11}	REW	(OFF – ON)
S_{12}	MEMORY	(OFF – ON)
S_{13}	PAUSE	(OFF – ON)

RESISTORS;
IN OHM, 1/4W, ±5% TOLERANCE UNLESS OTHERWISE NOTED. K = kΩ, M = MΩ.

CAPACITORS;
IN μF UNLESS OTHERWISE NOTED. P = pF

V : DC VOLTAGE AT NO INPUT SIGNAL
mA : DC CURRENT AT NO INPUT SIGNAL

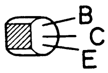
11.2 MISCELLANEOUS-PARTS

NOTE:
Capacitors: in μF unless otherwise noted p : pF
Resistors: in Ω, 1/4W unless otherwise noted k : kΩ, M : MΩ

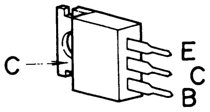
Symbol	Description	Part No.
T1	Power transformer	RTT-097
C1	Mylar 0.047 50V	CQMA 473K 50
CR1	Spark killer	RWX-109
VR1	Variable resistor (INPUT)	RCV-029
VR3	Variable resistor (OUTPUT)	RCV-030
PL1	Lamp (METER) 8V 55mA	
PL2	Lamp (METER) 8V 55mA	
PL3	Lamp (CASSETTE) 8V 100mA	
PL4	Lamp (FeCr) 26V 30mA	REL-026
PL5	Lamp (CrO_2) 26V 30mA	REL-026
S1	Power switch	RSA-010
S7	CHROME TAPE DETECTOR Switch	RSN-010
S8	PLAY Switch	RSN-011
S9	MUTING Switch	RSN-006
S11	REW Switch	RSN-019
S13	PAUSE Switch	RSN-006
H.E.	Erase head	RPB-014
R/PH	REC/PB head	RPB-037
SOL	STOP SOL	RXP-036
	Level meter	RAW-047
	MIC jack	RKN-031
	Headphone jack	RKN-032
	Power cord	RDG-013
	Motor	RXM-027
	Control assembly	RWG-062
	REC/PB amplifier assembly	RWF-056
	Indicator assembly	RWX-130
	Switch assembly	RWS-044
	Jack assembly	RWX-128
	Power supply assembly	RWR-035
	Switch assembly	RSX-041

External Appearance of Transistors

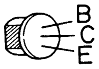
2SA564
2SA564A
2SC828
2SC828A
2SC1327
2SC1684



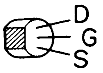
2SD234
2SC1419



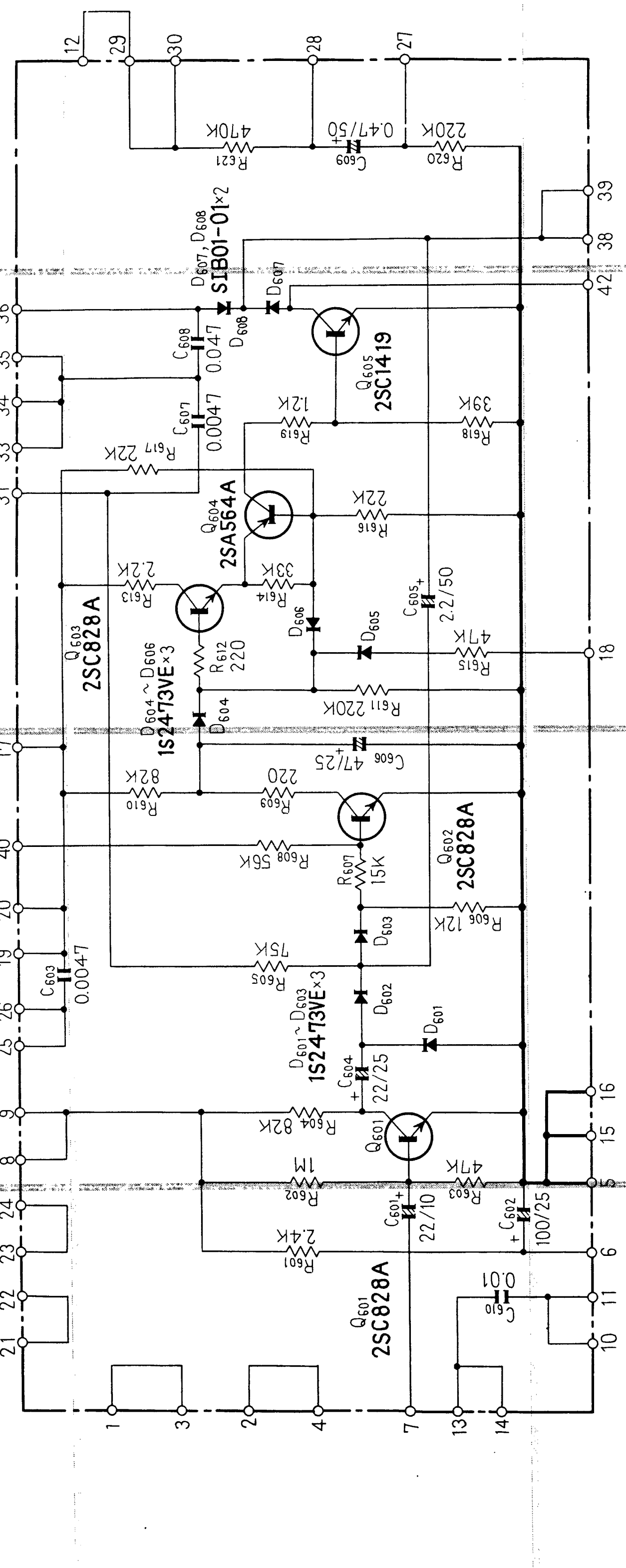
2SC735

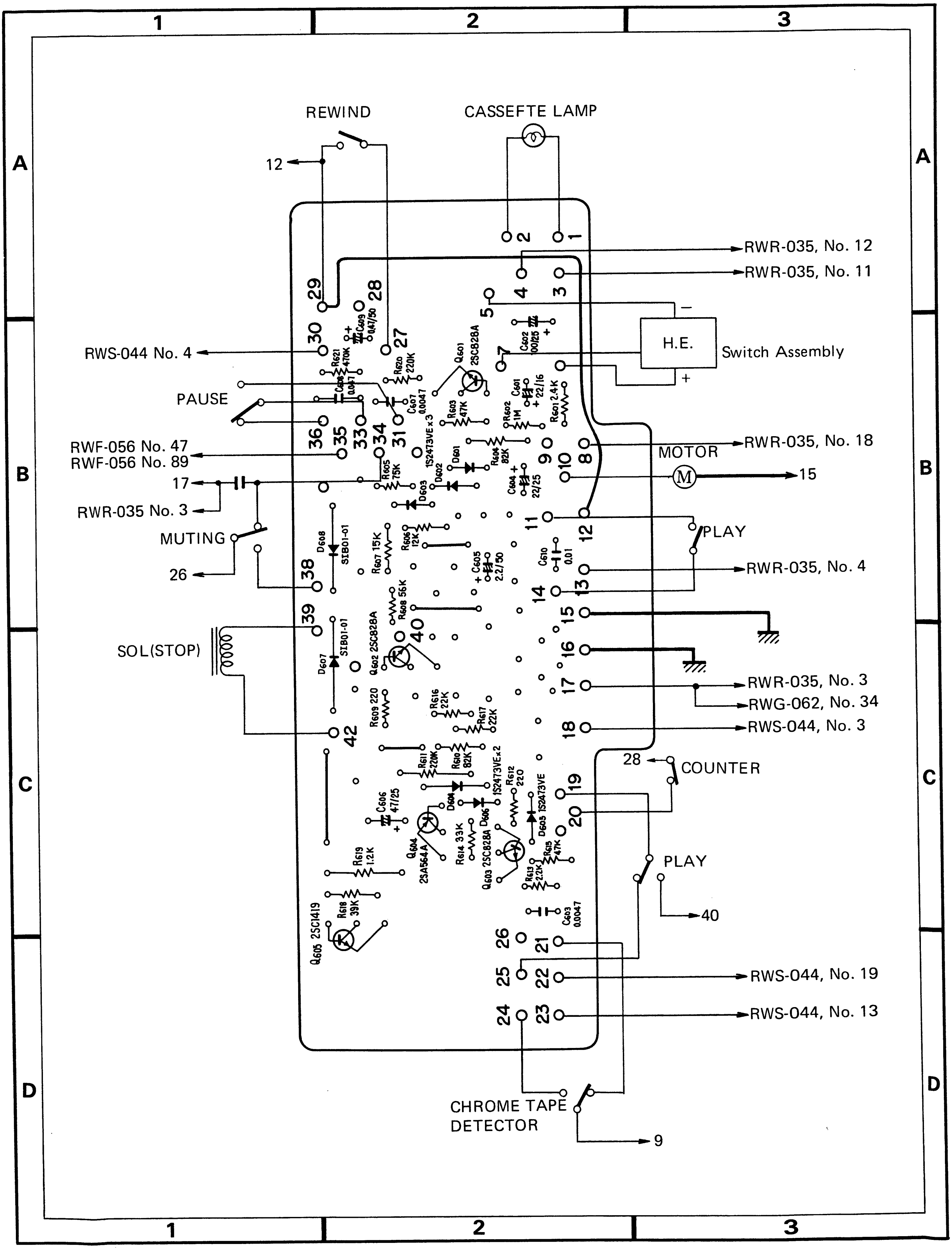


2SK30A



11.3 CONTROL ASSEMBLY (RWG-062)


Q601 2SC828A
Q602 2SC828A
Q603 2SC828A
Q604 2SA564A
Q605 2SC1419
D601~D603 1S2473VE×3
D604~D606 1S2473VE×3
D607, D608 SIB01-01×2
D601
D602
D603
D604
D605
D606
D607
D608
R601 2.4K
R602 1M
R603 47K
R604 82K
R605 75K
R606 12K
R607 15K
R608 56K
R609 220
R610 82K
R611 220K
R612 220
R613 2.2K
R614 33K
R615 47K
R616 22K
R617 22K
R618 39K
R619 1.2K
R620 220K
R621 470K
C601 22/10
C602 100/25
C603 0.0047
C604 22/25
C605 2.2/50
C606 47/25
C607 0.0047
C608 0.047
C609 0.47/50
C610 0.01
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
33
34
35
36
38
39
40
42


REWIND
CASSEFTE LAMP
12
RWR-035, No. 12
RWR-035, No. 11
RWS-044 No. 4
H.E.
Switch Assembly
PAUSE
RWF-056 No. 47
RWF-056 No. 89
17
RWR-035 No. 3
MOTOR
RWR-035, No. 18
15
MUTING
26
PLAY
RWR-035, No. 4
SOL(STOP)
RWR-035, No. 3
RWG-062, No. 34
RWS-044, No. 3
28
COUNTER
PLAY
40
RWS-044, No. 19
RWS-044, No. 13
CHROME TAPE
DETECTOR
9
Q601 2SC828A
Q602 2SC828A
Q603 2SC828A
Q604 2SA564A
Q605 2SC1419
D601
D602
D603
1S2473VE x 3
D604
D606
1S2473VE x 2
D605 1S2473VE
D607 SIB01-01
D608 SIB01-01
R601 2.4K
R602 1M
R603 47K
R604 82K
R605 75K
R606 12K
R607 15K
R608 56K
R609 220
R610 82K
R611 220K
R612 220
R613 2.2K
R614 33K
R615 47K
R616 22K
R617 22K
R618 39K
R619 1.2K
R620 220K
R621 470K
C601 22/16
C602 100/25
C603 0.0047
C604 22/25
C605 2.2/50
C606 47/25
C607 0.0047
C608 0.047
C609 0.47/50
C610 0.01
A
B
C
D
1
2
3

Parts List of Control Assembly (RWG-062)

SEMICONDUCTORS

Symbol	Description	Part No.
Q601	Transistor	2SC828A-R (S)
Q602	Transistor	2SC828A-R (S)
Q603	Transistor	2SC828A-R (S)
Q604	Transistor	2SA564A-R (S)
Q605	Transistor	2SC1419-C (2SC790-Y)
D601	Diode	1S2473VE
D602	Diode	1S2473VE
D603	Diode	1S2473VE
D604	Diode	1S2473VE
D605	Diode	1S2473VE
D606	Diode	1S2473VE
D607	Diode	SIB01-01 or (SIB01-02) (W03B) (W03C)
D608	Diode	SIB01-01 or (SIB01-02) (W03B) (W03C)

RESISTORS

Symbol	Description		Part No.
R601	Carbon film	2.4k	RD¼VS 242J
R602	Carbon film	1M	RD¼VS 105J
R603	Carbon film	47k	RD¼VS 473J
R604	Carbon film	82k	RD¼VS 823J
R605	Carbon film	75k	RD¼VS 753J
R606	Carbon film	12k	RD¼VS 123J
R607	Carbon film	15k	RD¼VS 153J
R608	Carbon film	56k	RD¼VS 563J
R609	Carbon film	220	RD¼VS 221J
R610	Carbon film	82k	RD¼VS 823J
R611	Carbon film	220k	RD¼VS 224J
R612	Carbon film	220	RD¼VS 221J
R613	Carbon film	2.2k	RD¼VS 222J
R614	Carbon film	33k	RD¼VS 333J
R615	Carbon film	47k	RD¼VS 473J
R616	Carbon film	22k	RD¼VS 223J
R617	Carbon film	22k	RD¼VS 223J
R618	Carbon film	39k	RD¼VS 393J
R619	Carbon film	1.2k	RD¼VS 122J
R620	Carbon film	220k	RD¼VS 224J
R621	Carbon film	470k	RD¼VS 474J

CAPACITORS

Symbol	Description			Part No.
C601	Electrolytic	22	10V	CEA 220P 16
C602	Electrolytic	100	25V	CEA 101P 25
C603	Mylar	4700p	50V	CQMA 472K 50
C604	Electrolytic	22	25V	CEA 220P 25
C605	Electrolytic	2.2	50V	CEA 2R2P 50
C606	Electrolytic	47	25V	CEA 470P 25
C607	Mylar	4700p	50V	CQMA 472K 50
C608	Mylar	0.047	50V	CQMA 473K 50
C609	Electrolytic	0.47	50V	CEA 0R47P 50
C610	Mylar	0.01	50V	CQMA 103K 50

Symbol	Description	Part No.
R126	Carbon film 390	RD¼VS 391J
R127	Carbon film 5.6k	RD¼VS 562J
R128	Carbon film 560	RD¼VS 561J
R129	Carbon film 470	RD¼VS 471J
R130	Carbon film 4.7k	RD¼VS 472J
R131	Carbon film 10k	RD¼VS 103J
R132	Carbon film 470	RD¼VS 471J
R133	Carbon film 180k	RD¼VS 184J
R134	Carbon film 270k	RD¼VS 274J
R135	Carbon film 68k	RD¼VS 683J
R136	Carbon film 510	RD¼VS 511J
R137	Carbon film 3.3k	RD¼VS 332J
R138	Carbon film 1k	TD¼VS 102J
R139	Carbon film 56k	TD¼VS 563J
R140	Carbon film 270k	RD¼VS 274J
R141	Carbon film 1.2k ½W	RD½PS 122J
R142	Carbon film 3.9k	RD¼VS 392J
R143	Carbon film 10k	RD¼VS 103J
R144	Carbon film 47k	RD¼VS 473J
R145	Carbon film 3.3k	RD¼VS 332J
R146	Carbon film 8.2k	RD¼VS 822J
R147	Carbon film 33k	RD¼VS 333J
R148	Carbon film 68k	RD¼VS 683J
R149	Carbon film 10k	RD¼VS 103J
R150	Carbon film 33k	RD¼VS 333J
R151	Carbon film 5.6k	RD¼VS 562J
R152	Carbon film 5.6k	RD¼VS 562J
R153	Carbon film 470	RD¼VS 471J
R154	Carbon film 22k	RD¼VS 223J
R155	Carbon film 18k	RD¼VS 183J
R156	Carbon film 2.7k	RD¼VS 272J
R157	Carbon film 10k	RD¼VS 103J
R158	Carbon film 4.7k	RD¼VS 472J
R159	Carbon film 220k	RD¼VS 224J
R160	Carbon film 33k	RD¼VS 333J
R161	Carbon film 4.7k	RD¼VS 472J
R162	Carbon film 1k	RD¼VS 102J
R163	Carbon film 22k	RD¼VS 223J
R164	Carbon film 56	RD¼VS 560J
R165	Carbon film 5.6k	RD¼VS 562J
R166	Carbon film 10k	RD¼VS 103J
R167	Carbon film 10k	RD¼VS 103J
R168	Carbon film 1.3k	RD¼VS 132J
R169	Carbon film 2.2k	RD¼VS 222J
R170	Carbon film 10k	RD¼VS 103J
R171	Carbon film 100k	RD¼VS 104J
R172	Carbon film 22k	RD¼VS 223J
R173	Carbon film 15	RD¼VS 150J
R174	Carbon film 10	RD¼VS 100J
R175	Carbon film 1.2k	RD¼VS 122J
R176	Carbon film 10k	RD¼VS 103J
R177	Carbon film 100k	RD¼VS 104J
R178	Carbon film 22k	RD¼VS 223J

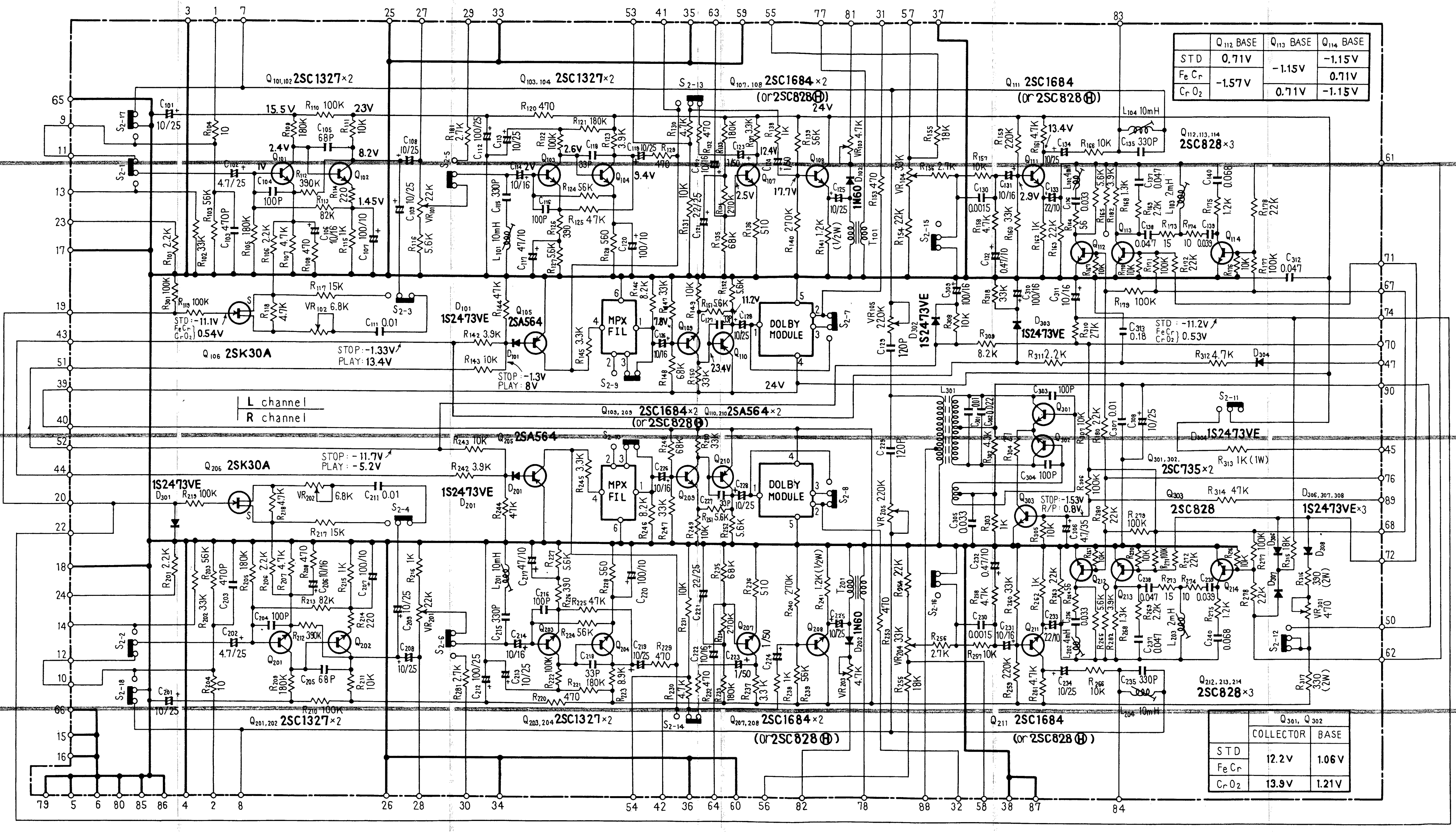
Symbol	Description	Part No.
R179	Carbon film 100k	RD¼VS 104J
R180	Carbon film 22k	RD¼VS 223J
R181	Carbon film 2.7k	RD¼VS 272J
R182	Carbon film 3.9k	RD¼VS 392J
R201	Carbon film 2.2k	RD¼VS 222J
R202	Carbon film 33k	RD¼VS 333J
R203	Carbon film 56k	RD¼VS 563J
R204	Carbon film 10	RD¼VS 100J
R205	Carbon film 180k	RD¼VS 184J
R206	Carbon film 2.2k	RD¼VS 222J
R207	Carbon film 4.7k	RD¼VS 472J
R208	Carbon film 470	RD¼VS 471J
R209	Carbon film 180k	RD¼VS 184J
R210	Carbon film 100k	RD¼VS 104J
R211	Carbon film 10k	RD¼VS 103J
R212	Carbon film 390k	RD¼VS 394J
R213	Carbon film 82k	RD¼VS 823J
R214	Carbon film 220	RD¼VS 221J
R215	Carbon film 1k	RD¼VS 102J
R216	Carbon film 5.6k	RD¼VS 562J
R217	Carbon film 15k	RD¼VS 153J
R218	Carbon film 4.7	RD¼VS 472J
R219	Carbon film 100k	RD¼VS 104J
R220	Carbon film 470	RD¼VS 471J
R221	Carbon film 180k	RD¼VS 184J
R222	Carbon film 100k	RD¼VS 104J
R223	Carbon film 3.9k	RD¼VS 392J
R224	Carbon film 56k	RD¼VS 563J
R225	Carbon film 47k	RD¼VS 473J
R226	Carbon film 390	RD¼VS 391J
R227	Cab on film 5.6k	RD¼VS 562J
R228	Carbon film 560	RD¼VS 561J
R229	Carbon film 470	RD¼VS 471J
R230	Carbon film 4.7k	RD¼VS 472J
R231	Carbon film 10k	RD¼VS 103J
R232	Carbon film 470	RD¼VS 471J
R233	Carbon film 180k	RD¼VS 184J
R234	Carbon film 270k	RD¼VS 274J
R235	Carbon film 68k	RD¼VS 683J
R236	Carbon film 510	RD¼VS 511J
R237	Carbon film 3.3k	RD¼VS 332J
R238	Carbon film 1k	RD¼VS 102J
R239	Carbon film 56k	RD¼VS 563J
R240	Carbon film 270k	RD¼VS 274J
R241	Carbon film 1.2k ½W	RD½PS 122J
R242	Carbon film 3.9k	RD¼VS 392J
R243	Carbon film 10k	RD¼VS 103J
R244	Carbon film 47k	RD¼VS 473J
R245	Carbon film 3.3k	RD¼VS 332J
R246	Carbon film 8.2k	RD¼VS 822J
R247	Carbon film 33k	RD¼VS 333J
R248	Carbon film 68k	RD¼VS 683J

Symbol	Description	Part No.
R249	Carbon film 10k	RD¼VS 103J
R250	Carbon film 33k	RD¼VS 333J
R251	Carbon film 5.6k	RD¼VS 562J
R252	Carbon film 5.6k	RD¼VS 562J
R253	Carbon film 470	RD¼VS 471J
R254	Carbon film 22k	RD¼VS 223J
R255	Carbon film 18k	RD¼VS 183J
R256	Carbon film 2.7k	RD¼VS 272J
R257	Carbon film 10k	RD¼VS 103J
R258	Carbon film 4.7k	RD¼VS 472J
R259	Carbon film 220k	RD¼VS 224J
R260	Carbon film 33k	RD¼VS 333J
R261	Carbon film 4.7k	RD¼VS 472J
R262	Carbon film 1k	RD¼VS 102J
R263	Carbon film 22k	RD¼VS 223J
R264	Carbon film 56	RD¼VS 560J
R265	Carbon film 5.6k	RD¼VS 562J
R266	Carbon film 10k	RD¼VS 103J
R267	Carbon film 10k	RD¼VS 103J
R268	Carbon film 1.3k	RD¼VS 132J
R269	Carbon film 2.2k	RD¼VS 222J
R270	Carbon film 10k	RD¼VS 103J
R271	Carbon film 100k	RD¼VS 104J
R272	Carbon film 22k	RD¼VS 223J
R273	Carbon film 15	RD¼VS 150J
R274	Carbon film 10	RD¼VS 100J
R275	Carbon film 1.2k	RD¼VS 122J
R276	Carbon film 10k	RD¼VS 103J
R277	Carbon film 100k	RD¼VS 104J
R278	Carbon film 22k	RD¼VS 223J
R279	Carbon film 100k	RD¼VS 104J
R280	Carbon film 22k	RD¼VS 223J
R281	Carbon film 2.7k	RD¼VS 272J
R282	Carbon film 3.9k	RD¼VS 392J
R301	Carbon film 100k	RD¼VS 104J
R302	Carbon film 4.3k	RD¼VS 432J
R303	Carbon film 1k	RD¼VS 102J
R304	Carbon film 27	RD¼VS 270J
R305	Carbon film 10k	RD¼VS 103J
R306	Carbon film 100k	RD¼VS 104J
R307	Carbon film 10k	RD¼VS 103J
R308	Carbon film 10k	RD¼VS 103J
R309	Carbon film 8.2k	RE¼VS 822J
R310	Carbon film 27k	RD¼VS 273J
R311	Carbon film 2.2k	RD¼VS 222J
R312	Carbon film 4.7k	RD¼VS 472J
R313	Metal oxide film 1k 1W	RS1P 102J
R314	Carbon film 47k	RD¼VS 473J
R315	Carbon film 18k	RD¼VS 183J
R316	Metal oxide film 390 2W	RS2P 391J
R317	Metal oxide film 330 2W	RS2P 331J
R318	Carbon film 33k	RD¼VS 333J

OTHERS

Symbol	Description	Part No.
	Shield case	M15-414
	Dolby module	RYY-003
S2	Slide switch	RSH-011

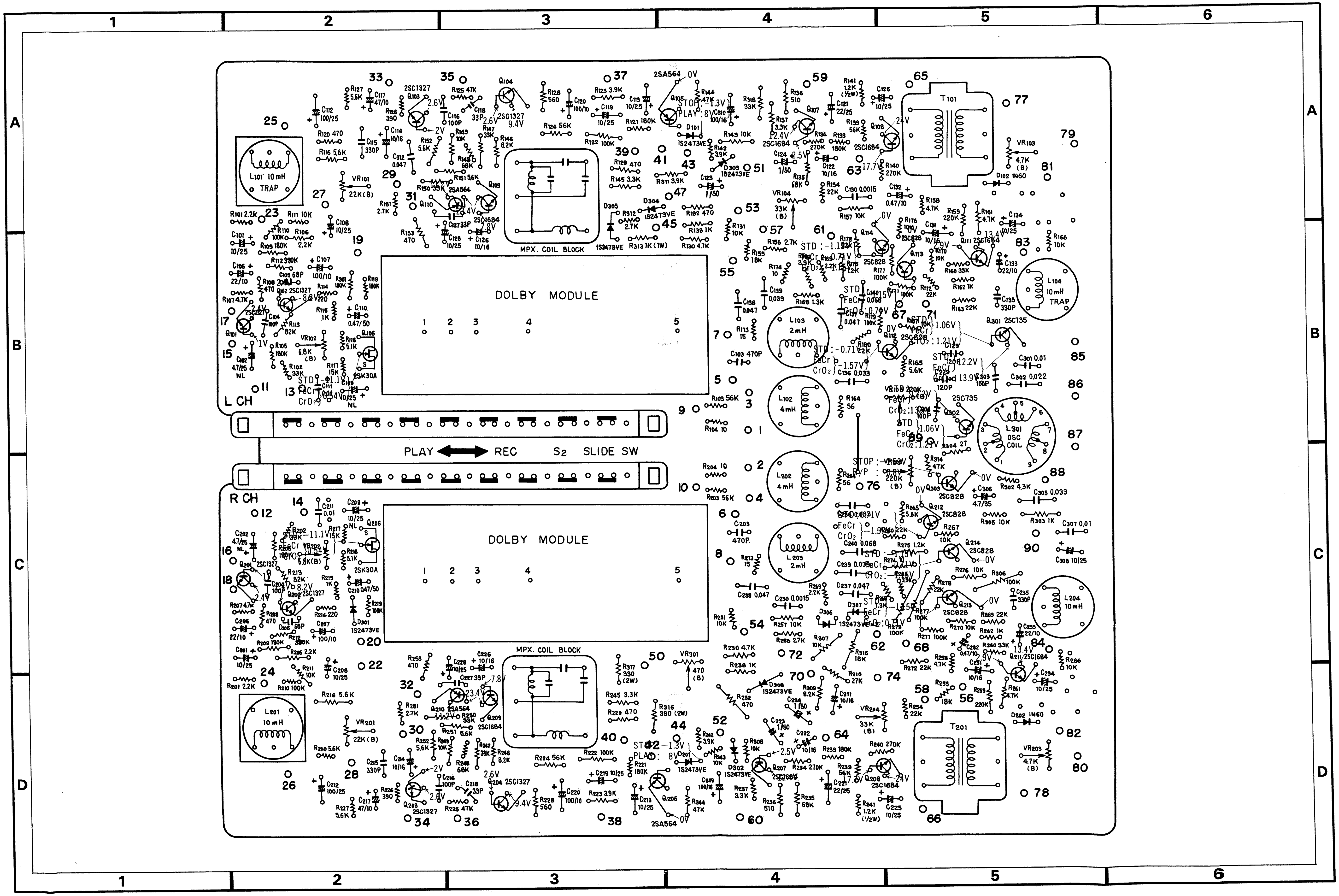
REC/PB Amplifier Assembly (RWF-056)


Q101,102 2SC1327×2
Q103,104 2SC1327×2
Q107,108 2SC1684×2 (or 2SC828Ⓗ)
Q111 2SC1684 (or 2SC828Ⓗ)
Q112,113,114 2SC828×3
Q105 2SA564
Q106 2SK30A
D101 1S2473VE
D102 1N60
D302 1S2473VE
D303 1S2473VE
D304
MPX FIL
DOLBY MODULE
STD: -11.1V
FeCr, CrO2 0.54V
STOP: -1.33V
PLAY: 13.4V
STOP: -1.3V
PLAY: 8V
STD: -11.2V
FeCr, CrO2 0.53V
15.5V
23V
2.4V
8.2V
1.45V
2.6V
5.4V
12.4V
24V
17.7V
2.5V
13.4V
2.9V
7.8V
11.2V
23.4V
24V
L channel
R channel
Q103,203 2SC1684×2 (or 2SC828Ⓗ)
Q110,210 2SA564×2
Q205 2SA564
Q206 2SK30A
STOP: -11.7V
PLAY: -5.2V
1S2473VE
D201
D301
Q301,302 2SC735×2
D304 1S2473VE
R313 1K (1W)
Q303 2SC828
STOP: -1.53V
R/P: 0.8V
D306,307,308 1S2473VE×3
Q201,202 2SC1327×2
Q203,204 2SC1327×2
Q207,208 2SC1684×2 (or 2SC828Ⓗ)
Q211 2SC1684 (or 2SC828Ⓗ)
Q212,213,214 2SC828×3
D202 1N60
T101
T201
L301
R317 330 (2W)
R316 330 (2W)
VR301 470
65
9
11
13
23
17
19
43
51
39
40
52
44
20
22
18
24
14
12
10
66
15
16
79
5
6
80
85
86
4
2
8
26
28
30
34
54
42
36
64
60
56
82
78
88
32
58
38
87
84
3
1
7
25
27
29
33
53
41
35
63
59
55
77
81
31
57
37
83
61
71
67
74
70
47
90
45
76
89
68
72
50
62

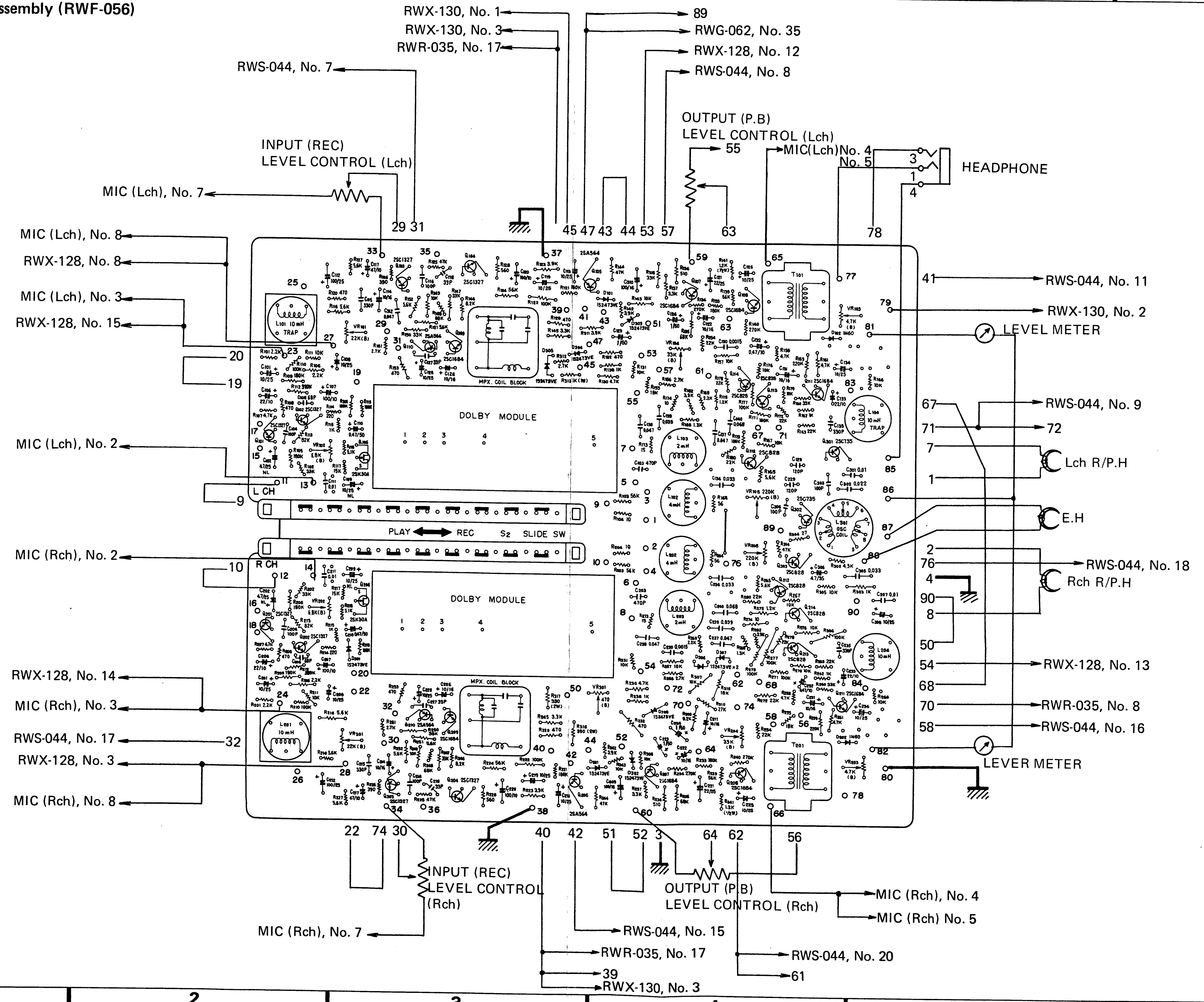
	Q112 BASE	Q113 BASE	Q114 BASE
STD	0.71V	-1.15V	-1.15V
Fe Cr	-1.57V		0.71V
Cr O2		0.71V	-1.15V

	Q301, Q302	
	COLLECTOR	BASE
STD	12.2V	1.06V
Fe Cr		
Cr O2	13.9V	1.21V

S_2 REC/PB SELECTOR SW (PB POSI.)


DOLBY MODULE
DOLBY MODULE
MPX. COIL BLOCK
MPX. COIL BLOCK
L CH
R CH
PLAY
REC
S2 SLIDE SW
L101 10mH TRAP
L104 10mH TRAP
L201 10mH
L204 10mH
L103 2mH
L102 4mH
L202 4mH
L203 2mH
L301 OSC COIL
T101
T201
VR101 22K(B)
VR102 6.8K (B)
VR103 4.7K (B)
VR104 33K (B)
VR201 22K (B)
VR203 4.7K (B)
VR204 33K (B)
VR301 470 (B)
1
2
3
4
5
6
A
B
C
D

REC/PB Amplifier Assembly (RWF-056)



1
2
3
4
5
6
A
B
C
D
RWX-130, No. 1
RWX-130, No. 3
RWR-035, No. 17
RWS-044, No. 7
89
RWG-062, No. 35
RWX-128, No. 12
RWS-044, No. 8
INPUT (REC) LEVEL CONTROL (Lch)
MIC (Lch), No. 7
OUTPUT (P.B) LEVEL CONTROL (Lch)
55
MIC(Lch)No. 4
No. 5
HEADPHONE
MIC (Lch), No. 8
RWX-128, No. 8
MIC (Lch), No. 3
RWX-128, No. 15
20
19
MIC (Lch), No. 2
9
MIC (Rch), No. 2
10
RWX-128, No. 14
MIC (Rch), No. 3
RWS-044, No. 17
32
RWX-128, No. 3
MIC (Rch), No. 8
RWS-044, No. 11
RWX-130, No. 2
LEVEL METER
RWS-044, No. 9
72
Lch R/P.H
E.H
RWS-044, No. 18
Rch R/P.H
RWX-128, No. 13
RWR-035, No. 8
RWS-044, No. 16
LEVER METER
DOLBY MODULE
MPX. COIL BLOCK
L CH
R CH
PLAY
REC
S2 SLIDE SW
T101
T201
L101 10 mH TRAP
L301 OSC COIL
INPUT (REC) LEVEL CONTROL (Rch)
MIC (Rch), No. 7
OUTPUT (P.B) LEVEL CONTROL (Rch)
MIC (Rch), No. 4
MIC (Rch) No. 5
RWS-044, No. 15
RWR-035, No. 17
39
RWX-130, No. 3
RWS-044, No. 20
61

11.4 REC/PB AMPLIFIER ASSEMBLY (RWF-056)

SEMICONDUCTORS

Symbol	Description	Part No.
Q101	Transistor	2SC1327-T(U)
Q102	Transistor	2SC1327-T(U)
Q103	Transistor	2SC1327-T(U)
Q104	Transistor	2SC1327-T(U)
Q105	Transistor	2SA564–R(S)
Q106	FET	2SK30A-0(Y)
Q107	Transistor	2SC828Ⓗ-R(S) (2SC1684-R or S)
Q108	Transistor	2SC828Ⓗ-R (2SC1684-R or S)
Q109	Transistor	2SC828Ⓗ-R (2SC1684-R or S)
Q110	Transistor	2SA564-R
Q111	Transistor	2SC828-R(S) (2SC1684-R or S)
Q112	Transistor	2SC828-R(S, Q)
Q113	Transistor	2SC828-R(S, Q)
Q114	Transistor	2SC828-R(S, Q)
Q201	Transistor	2SC1327-T(U)
Q202	Transistor	2SC1327-T(U)
Q203	Transistor	2SC1327-T(U)
Q204	Transistor	2SC1327-T(U)
Q205	Transistor	2SA564-R(S)
Q206	FET	2SK30A-0(Y)
Q207	Transistor	2SC828Ⓗ-R(S) (2SC1684-R or S)
Q208	Transistor	2SC828Ⓗ-R(S) (2SC1684-R or S)
Q209	Transistor	2SC828Ⓗ-R(S) (2SC1684-R or S)
Q210	Transistor	2SA564-R(S)
Q211	Transistor	2SC8280Ⓗ-R(S) (2SC1684-R or S)
Q212	Transistor	2SC828-R(S, Q)
Q213	Transistor	2SC828-R(S, Q)
Q214	Transistor	2SC828-R(S, Q)
Q301	Transistor	2SC735-Y(GR) (2SC1318-R or S)
Q302	Transistor	2SC735-Y (2SC1318-R or S)
Q303	Transistor	2SC828-R(S)
D101	Diode	1S2473VE
D102	Diode	1N60
D201	Diode	1S2473VE
D202	Diode	1N60
D301	Diode	1S2473VE
D302	Diode	1S2473VE
D303	Diode	1S2473VE
D304	Diode	1S2473VE
D306	Diode	1S2473VE
D307	Diode	1S2473VE
D308	Diode	1S2473VE

TRANSFORMERS AND COILS

Symbol	Description	Part No.
T101	Matching transformer	RTV-006
T201	Matching transformer	RTV-006
L101	Trap coil	T84-401
L102	Peaking coil	RTF-001
L103	Peaking coil	RTF-007
L104	Trap coil	T84-401
L201	Trap coil	T84-401
L202	Peaking coil	RTF-001
L203	Peaking coil	RTF-007
L204	Trap coil	T84-401
L301	OSC coil	T64-001
	MPX coil block	RTF-012

CAPACITORS

Symbol	Description			Part No.
C101	Electrolytic	10	25V	CEA 100P 25
C102	Electrolytic	4.7	25V	CEANL 4R7P 25
C103	Polystreme film	470p	50V	CQSA 471K 50
C104	Ceramic	100p	50V	CCDSL 101K 50
C105	Ceramic	68p	50V	CCDSL 680K 50
C106	Electrolytic	10	16V	CEA 100P 16
C107	Electrolytic	100	10V	CEA 101P 10
C108	Electrolytic	10	25V	CEA 100P 25
C109	Electrolytic	10	25V	CEANL 100P 25
C110	· · · · · · · · · · ·			
C111	Mylar	0.01	50V	CQMA 103K 50
C112	Electrolytic	100	25V	CEA 101P 25
C113	Electrolytic	10	25V	CEA 100P 25
C114	Electrolytic	10	16V	CEA 100P 16
C115	Polystyrene film	330p	50V	CQSA 331K 50
C116	Ceramic	100p	50V	CCDSL 101K 50
C117	Electrolytic	47	10V	CEA 470P 10
C118	Ceramic	33p	50V	CCDSL 330K 50
C119	Electrolytic	10	25V	CEA 100P 25
C120	Electrolytic	100	10V	CEA 101P 10
C121	Electrolytic	22	25V	CEA 220P 25
C122	Electrolytic	10	16V	CEA 100P 16
C123	Electrolytic	1	50V	CEA 010P 50
C124	Electrolytic	1	50V	CEA 010P 50
C125	Electrolytic	10	25V	CEA 100P 25
C126	Electrolytic	10	16V	CEA 100P 16
C127	Ceramic	33p	50V	CCDSL 330K 50
C128	Electrolytic	10	25V	CEA 100P 25
C129	Polystyrene film	120p	50V	CQSA 121K 50
C130	Mylar	1500p	50V	CQMA 152K 50

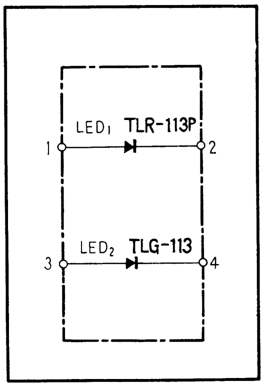
Symbol	Description	Part No.
C131	Electrolytic 10 16V	CEA 100P 16
C132	Electrolytic 0.47 10V	CSSA 0R47M 10
C133	Electrolytic 22 10V	CEA 220P 10
C134	Electrolytic 10 25V	CEA 100P 25
C135	Polystyrene film 330p 50V	CQSA 331K 50
C136	Mylar 0.033 50V	CQMA 333K 50
C137	Mylar 0.047 50V	CQMA 473K 50
C138	Mylar 0.047 50V	CQMA 473K 50
C139	Mylar 0.039 50V	CQMA 393K 50
C140	Mylar 0.068 50V	CQMA 683K 50
C201	Electrolytic 10 25V	CEA 100P 25
C202	Electrolytic 4.7 25V	CEANL 4R7P 25
C203	Polystyrene film 470p 50V	CQSA 471K 50
C204	Ceramic 100p 50V	CCDSL 101K 50
C205	Ceramic 68p 50V	CCDSL 680K 50
C206	Electrolytic 10 16V	CEA 100P 16
C207	Electrolytic 100 10V	CEA 101P 10
C208	Electrolytic 10 25V	CEA 100P 25
C209	Electrolytic 10 25V	CEANL 100P 25
C210	· · · · · · · · · · · ·	
C211	Mylar 0.01 50V	CQMA 103K 50
C212	Electrolytic 100 25V	CEA 101P 25
C213	Electrolytic 10 25V	CEA 100P 25
C214	Electrolytic 10 16V	CEA 100P 16
C215	Polystyrene film 330p 50V	CQSA 331K 50
C216	Ceramic 100p 50V	CCDSL 101K 50
C217	Electrolytic 47 10V	CEA 470P 10
C218	Ceramic 33p 50V	CCDSL 330K 50
C219	Electrolytic 10 25V	CEA 100P 25
C220	Electrolytic 100 10V	CEA 101P 10
C221	Electrolytic 22 25V	CEA 220P 25
C222	Electrolytic 10 16V	CEA 100P 16
C223	Electrolytic 1 50V	CEA 010P 50
C224	Electrolytic 1 50V	CEA 010P 50
C225	Electrolytic 10 25V	CEA 100P 25
C226	Electrolytic 10 16V	CEA 100P 16
C227	Ceramic 33p 50V	CCDSL 330K 50
C228	Electrolytic 10 25V	CEA 100P 25
C229	Polystyrene film 120p 50V	CQSA 121K 50
C230	Mylar 1500p 50V	CQMA 152K 50
C231	Electrolytic 10 16V	CEA 100P 16
C232	Electrolytic 0.47 10V	CSSA 0R47M 10
C233	Electrolytic 22 10V	CEA 220P 10
C234	Electrolytic 10 25V	CEA 100P 25
C235	Polystyrene film 330p 50V	CQSA 331K 50
C236	Mylar 0.033 50V	CQMA 333K 50
C237	Mylar 0.047 50V	CQMA 473K 50
C238	Mylar 0.047 50V	CQMA 473K 50
C239	Mylar 0.039 50V	CQMA 393K 50
C240	Mylar 0.068 50V	CQMA 683K 50
C301	Mylar 0.01 50V	CQMA 103K 50
C302	0.022 50V	CQPA 223K 50
C303	Ceramic 100p 50V	CCDSL 101K 50

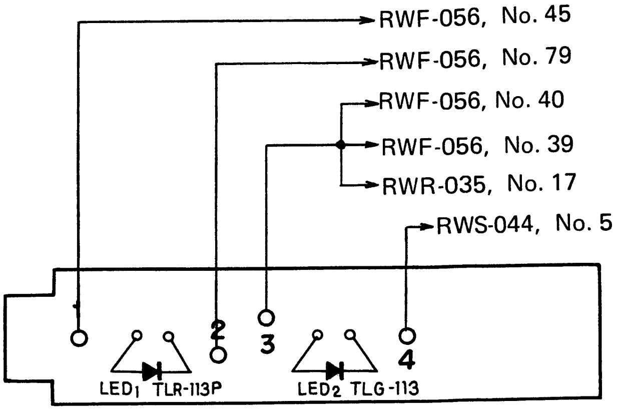
Symbol	Description	Part No.
C304	Ceramic 100p 50V	CCDSL 101K 50
C305	Mylar 0.33 50V	CQMA 333K 50
C306	Electrolytic 4.7 35V	CEA 4R7P 35
C307	Mylar 0.01 50V	CQMA 103K 50
C308	Electrolytic 10 25V	CEA 100P 25
C309	Electrolytic 100 16V	CEA 101P 16
C310	Electrolytic 100 16V	CEA 101P 16
C311	Electrolytic 10 16V	CEA 100P 16
C312	Mylar 0.047 50V	CQMA 473K 50
C313	Mylar 0.18 50V	CQMA 184K 50

RESISTORS

Symbol	Description	Part No.
VR101	Variable (Semi-fixed) 22k-B	C92-857
VR102	Variable (Semi-fixed) 6.8k-B	RCP-001
VR103	Variable (Solid Semi-fixed) 4.7k-B	C92-051
VR104	Variable (Solid Semi-fixed) 33k-B	C81-426
VR105	Variable (Semi-fixed) 220k-B	RCP-005
VR201	Variable (Semi-fixed) 22k-B	C92-857
VR202	Variable (Semi-fixed) 6.8k-B	RCP-001
VR203	Variable (Solid Semi-fixed) 4.7k-B	C92-051
VR204	Variable (Solid Semi-fixed) 33k-B	C81-426
VR205	Variable (Semi-fixed) 220k-B	RCP-005
VR301	Variable (Semi-fixed) 470	RCP-022
R101	Carbon film 2.2k	RD¼VS 222J
R102	Carbon film 33k	RD¼VS 333J
R103	Carbon film 56k	RD¼VS 563J
R104	Carbon film 10	RD¼VS 100J
R105	Carbon film 180k	RD¼VS 184J
R106	Carbon film 2.2k	RD¼VS 222J
R107	Carbon film 4.7k	RD¼VS 472J
R108	Carbon film 470	RD¼VS 471J
R109	Carbon iflm 180k	RD¼VS 184J
R110	Carbon film 100k	RD¼VS 104J
R111	Carbon film 10k	RD¼VS 103J
R112	Carbon film 390k	RD¼VS 394J
R113	Carbon film 82k	RD¼VS 823J
R114	Carbon film 220	RD¼VS 221J
R115	Carbon film 1k	RD¼VS 102J
R116	Carbon film 5.6k	RD¼VS 562J
R117	Carbon film 15k	RD¼VS 153J
R118	Carbon film 4.7k	RD¼VS 472J
R119	Carbon film 100k	RD¼VS 104J
R120	Carbon film 470	RD¼VS 471J
R121	Carbon film 180k	RD¼VS 184J
R122	Carbon film 100k	RD¼VS 104J
R123	Carbon film 3.9k	RD¼VS 392J
R124	Carbon film 56k	RD¼VS 563J
R125	Carbon iflm 47k	RD¼VS 473J

11.5 INDICATOR ASSEMBLY (RWX-130)


LED1 TLR-113P
LED2 TLG-113
1
2
3
4

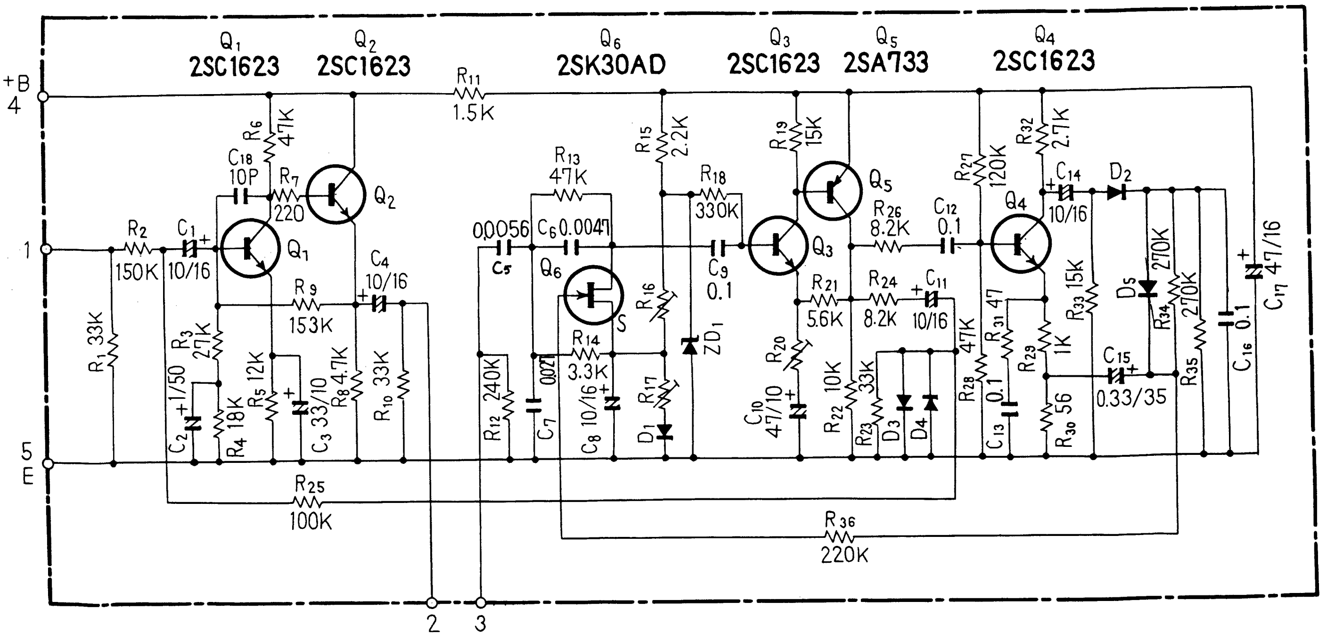

RWF-056, No. 45
RWF-056, No. 79
RWF-056, No. 40
RWF-056, No. 39
RWR-035, No. 17
RWS-044, No. 5
1
2
3
4
LED1 TLR-113P
LED2 TLG-113

Parts List

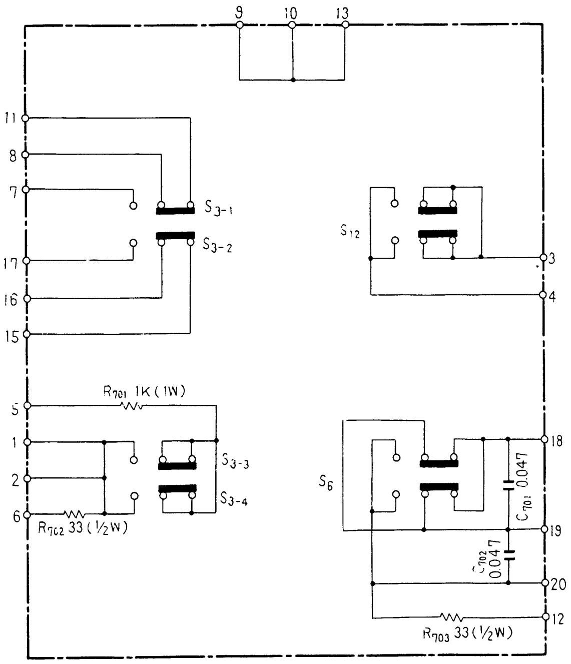
SEMICONDUCTORS AND OTHERS

Symbol	Description	Part No.
LED1	LED (Red)	TLR-113P
LED2	LED (Green)	TLG-113
	Diode holder	REB-179

11.6 DOLBY MODULE


Q1 2SC1623
Q2 2SC1623
Q6 2SK30AD
Q3 2SC1623
Q5 2SA733
Q4 2SC1623
+B 4
1
5 E
2
3
R1 33K
R2 150K
C1 10/16
C2 1/50
R3 27K
R4 18K
R5 12K
R6 47K
C18 10P
R7 220
R8 4.7K
C3 33/10
R9 153K
C4 10/16
R10 33K
R11 1.5K
R25 100K
C5 0.0056
C6 0.0047
R12 240K
C7 0.027
R13 47K
R14 3.3K
C8 10/16
R15 2.2K
R16
R17
D1
ZD1
R18 330K
C9 0.1
R19 15K
R20
C10 47/10
R21 5.6K
R22 10K
R23 33K
R24 8.2K
C11 10/16
R26 8.2K
C12 0.1
D3
D4
R27 120K
R28 47K
R29 1K
R30 56
R31 47
C13 0.1
R32 2.7K
C14 10/16
D2
R33 15K
D5
R34 270K
R35 270K
C15 0.33/35
C16 0.1
C17 47/16
R36 220K
S

11.7 SWITCH ASSEMBLY (RWS-044)


9
10
13
11
8
7
17
16
15
S3-1
S3-2
S12
3
4
R701 1K (1W)
5
1
2
6
S3-3
S3-4
R702 33 (½W)
S6
18
C701 0.047
19
C702 0.047
20
12
R703 33 (½W)

S_3 : DOLBY SW (OFF POSI.) S_6 : TAPE SELECTOR SW (STD POSI.)
S_{12} : MEMORY SW (OFF POSI.)

Parts List

SWITCHES

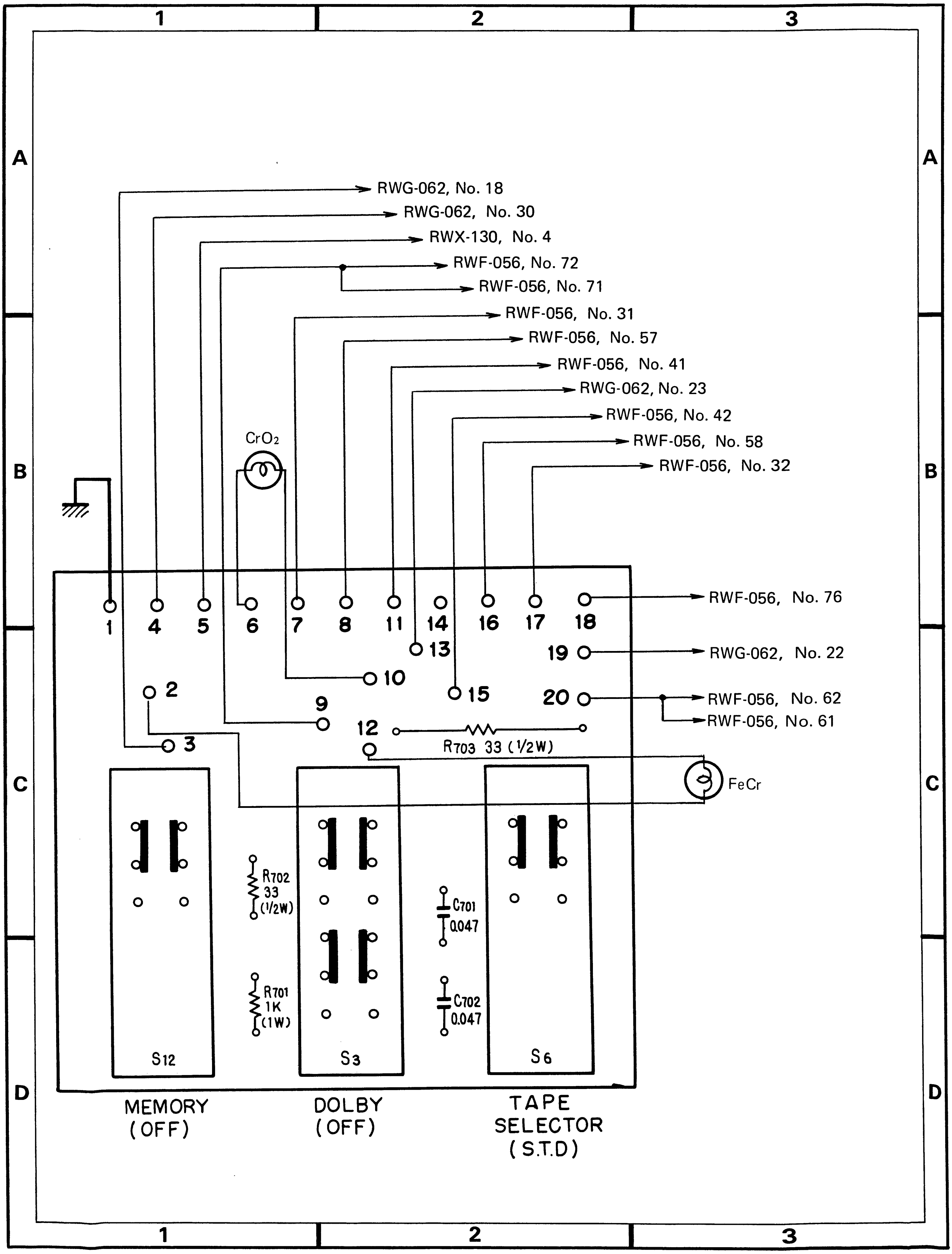
Symbol	Description	Part No.
S3	Lever switch	RSK-031
S6	Lever switch	RSK-032
S12	Lever switch	RSK-032

RESISTORS

Symbol	Description			Part No.
R701	Metal oxide film	1k	1W	RS1PSF 102J
R702	Carbon film	33	½W	RD½PSF 330J
R703	Carbon film	33	½W	RD½PSF 330J

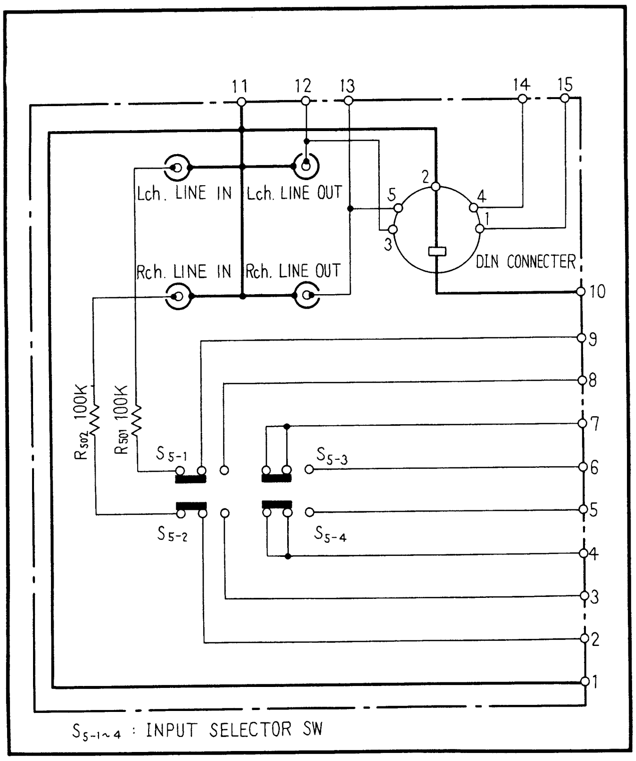
CAPACITORS

Symbol	Description			Part No.
C701	Mylar	0.047	50V	CQMA 473K 50
C702	Mylar	0.047	50V	CQMA 473K 50



1
2
3
A
B
C
D
RWG-062, No. 18
RWG-062, No. 30
RWX-130, No. 4
RWF-056, No. 72
RWF-056, No. 71
RWF-056, No. 31
RWF-056, No. 57
RWF-056, No. 41
RWG-062, No. 23
RWF-056, No. 42
RWF-056, No. 58
RWF-056, No. 32
CrO₂
1
4
5
6
7
8
11
14
16
17
18
13
19
10
2
15
20
9
12
3
RWF-056, No. 76
RWG-062, No. 22
RWF-056, No. 62
RWF-056, No. 61
R703 33 (1/2W)
FeCr
R702 33 (1/2W)
R701 1K (1W)
C701 0.047
C702 0.047
S12
S3
S6
MEMORY (OFF)
DOLBY (OFF)
TAPE SELECTOR (S.T.D)

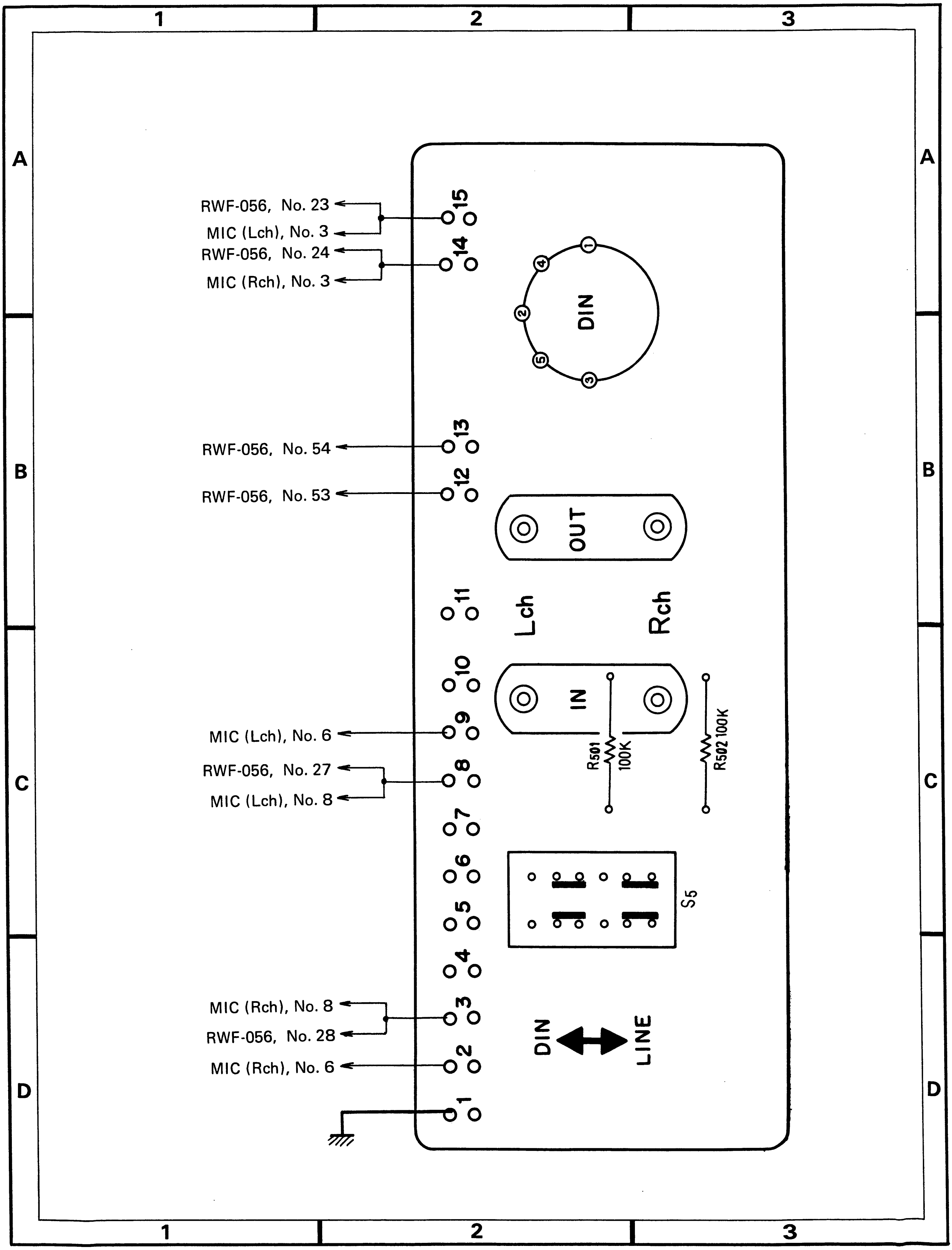
11.8 JACK ASSEMBLY (RWX-128)


11
12
13
14
15
Lch. LINE IN
Lch. LINE OUT
Rch. LINE IN
Rch. LINE OUT
DIN CONNECTER
5
2
4
1
3
10
9
8
7
6
5
4
3
2
1
R_{502} 100K
R_{501} 100K
S_{5-1}
S_{5-2}
S_{5-3}
S_{5-4}
$S_{5-1\sim4}$: INPUT SELECTOR SW

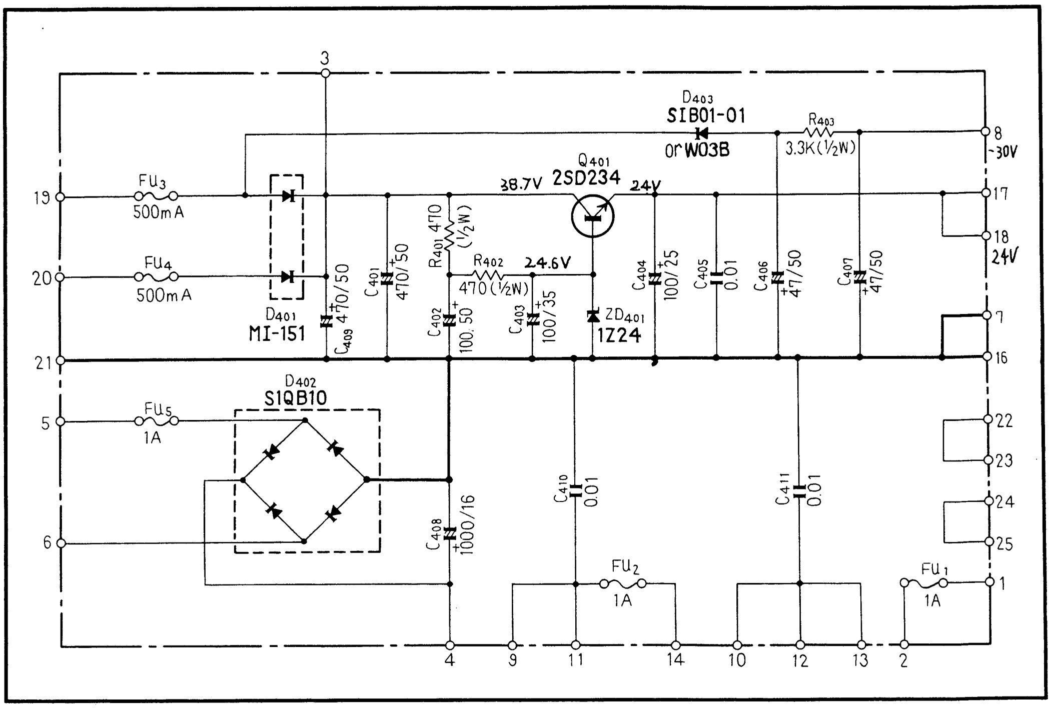
Parts List

RESISTORS

Symbol	Description	Part No.
R501	Carbon film 100k	RD¼PS 104J
R502	Carbon film 100k	RD¼PS 104J
	Pin jack assembly	RKB-010
	Switch (INPUT SELECTOR)	RSH-021


1
2
3
A
B
C
D
RWF-056, No. 23
MIC (Lch), No. 3
RWF-056, No. 24
MIC (Rch), No. 3
RWF-056, No. 54
RWF-056, No. 53
MIC (Lch), No. 6
RWF-056, No. 27
MIC (Lch), No. 8
MIC (Rch), No. 8
RWF-056, No. 28
MIC (Rch), No. 6
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
DIN
①
②
③
④
⑤
OUT
Lch
Rch
IN
R501
100K
R502 100K
S5
DIN
LINE

11.9 POWER SUPPLY ASSEMBLY (RWR-035)


3
D403
SIB01-01
or W03B
R403
3.3K(½W)
8
-30V
Q401
38.7V
2SD234
24V
FU3
500mA
19
17
18
24V
R401 470 (½W)
R402
24.6V
470(½W)
C404 100/25
C405 0.01
C406 47/50
C407 47/50
20
FU4
500mA
D401
MI-151
C409 470/50
C401 470/50
C402 100/50
C403 100/35
ZD401
1Z24
7
21
16
D402
SIQB10
5
FU5
1A
22
23
24
25
C410 0.01
C411 0.01
C408 1000/16
6
FU2
1A
FU1
1A
1
4
9
11
14
10
12
13
2

Parts List

SEMICONDUCTORS

Symbol	Description	Part No.
Q401	Transistor	2SD234-0 or Y
D401	Diode	MI-151
D402	Diode	SIQB10
D403	Diode	SIB01-01 or (SIB01-02) (W03B) (W03C)
ZD401	Zener diode	1Z24

CAPACITORS

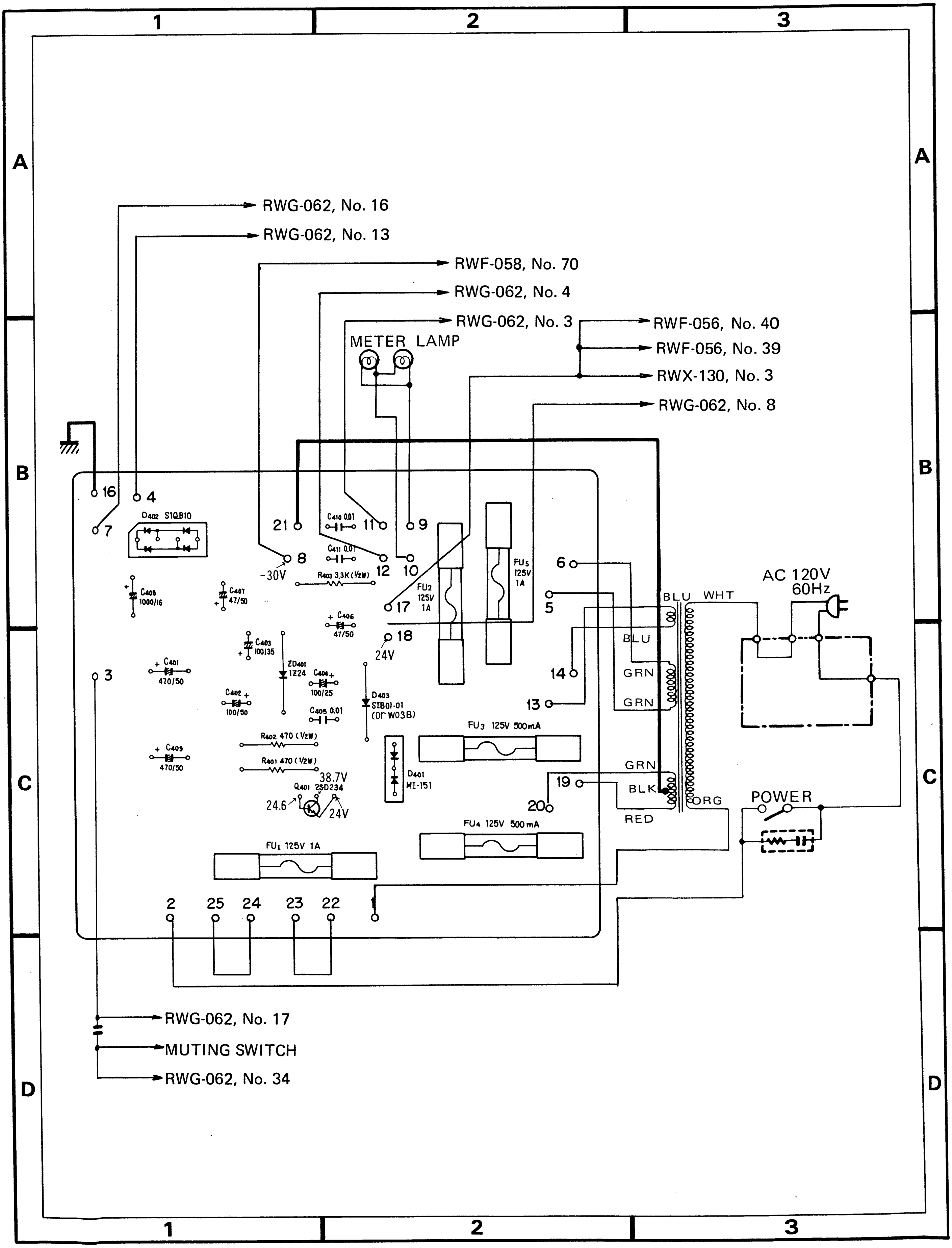
Symbol	Description			Part No.
C401	Electrolytic	470	50V	CEA 471P 50
C402	Electrolytic	100	50V	CEA 101P 50
C403	Electrolytic	100	35V	CEA 101P 35
C404	Electrolytic	100	25V	CEA 101P 25
C405	Ceramic	0.01	50V	CKDYF 103Z 50
C406	Electrolytic	47	50V	CEA 470P 50
C407	Electrolytic	47	50V	CEA 470P 50
C408	Electrolytic	1000	16V	CEA 102P 16
C409	Electrolytic	470	50V	CEA 471P 50
C410	Ceramic	0.01	50V	CKDYF 103Z 50
C411	Ceramic	0.01	50V	CKDYF 103Z 50

RESISTORS

Symbol	Description			Part No.
R401	Carbon film	470	½W	RD½PSF 471J
R402	Carbon film	470	½W	RD½PSF 471J
R403	Carbon film	3.3k	½W	RD½PS 332J

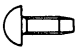
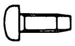
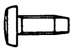
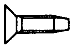
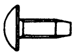
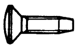
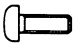
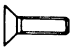
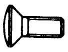
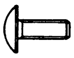
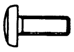
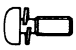
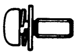
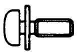
OTHERS

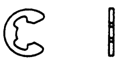
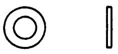
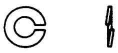
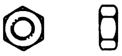
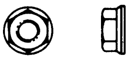
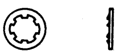
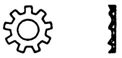
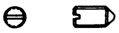
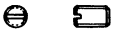
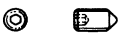
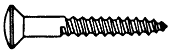
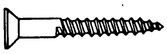
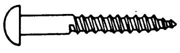
Symbol	Description	Part No.
FU1	Fuse 1A	REK-051
FU2	Fuse 1A	REK-051
FU3	Fuse 500mA	REK-048
FU4	Fuse 500mA	REK-048
FU5	Fuse 1A	REK-051
	Fuse holder	RKR-017


1
2
3
A
B
C
D
RWG-062, No. 16
RWG-062, No. 13
RWF-058, No. 70
RWG-062, No. 4
RWG-062, No. 3
RWF-056, No. 40
RWF-056, No. 39
RWX-130, No. 3
RWG-062, No. 8
METER LAMP
16
4
7
D402 S1QB10
21
C410 0.01
11
9
8
-30V
C411 0.01
12
10
R403 3.3K (1/2W)
C408 1000/16
C407 47/50
FU2 125V 1A
FU5 125V 1A
17
C406 47/50
18
24V
6
5
14
13
AC 120V 60Hz
BLU
WHT
BLU
GRN
GRN
GRN
BLK
RED
ORG
C403 100/35
ZD401 1Z24
C404 100/25
C401 470/50
3
C402 100/50
C405 0.01
D403 SIB01-01 (or W03B)
FU3 125V 500mA
R402 470 (1/2W)
R401 470 (1/2W)
C409 470/50
D401 MI-151
38.7V
Q401 2SD234
24.6
24V
19
20
POWER
FU4 125V 500mA
FU1 125V 1A
2
25
24
23
22
1
RWG-062, No. 17
MUTING SWITCH
RWG-062, No. 34

12. EXPLODED VIEWS

The following symbols stand for screws, washers and nuts as shown in exploded view.

Symbol	Description	Shape
RT	Brazier head tapping screw	
PT	Pan head tapping screw	
BT	Binding head tapping screw	
CT	Countersunk head tapping screw	
TT	Truss head tapping screw	
OCT	Oval countersunk head tapping screw	
PM	Pan head machine screw	
CM	Countersunk head machine screw	
OCM	Oval countersunk head machine screw	
TM	Truss head machine screw	
BM	Binding head machine screw	
PSA	Pan head screw with spring lock washer	
PSB	Pan head screw with spring lock washer and flat washer	
PSF	Pan head screw with flat washer	

Symbol	Description	Shape
EW	E type washer	
FW	Flat washer	
SW	Spring lock washer	
N	Nut	
WN	Washer faced nut	
ITW	Internal toothed lock washer	
OTW	Outernal toothed lock washer	
SC	Slotted set screw (Cone point)	
SF	Slotted set screw (Flat point)	
HS	Hexagon socket headless set screw	
OCW	Oval countersunk head wood screw	
CW	Countersunk head wood screw	
RW	Round head wood screw	

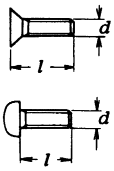
EXAMPLE

PM·3x8

length in mm (*l*)

diameter in mm (*d*)

Symbol

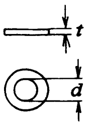


FW·9ϕx1^t

thickness in mm (*t*)

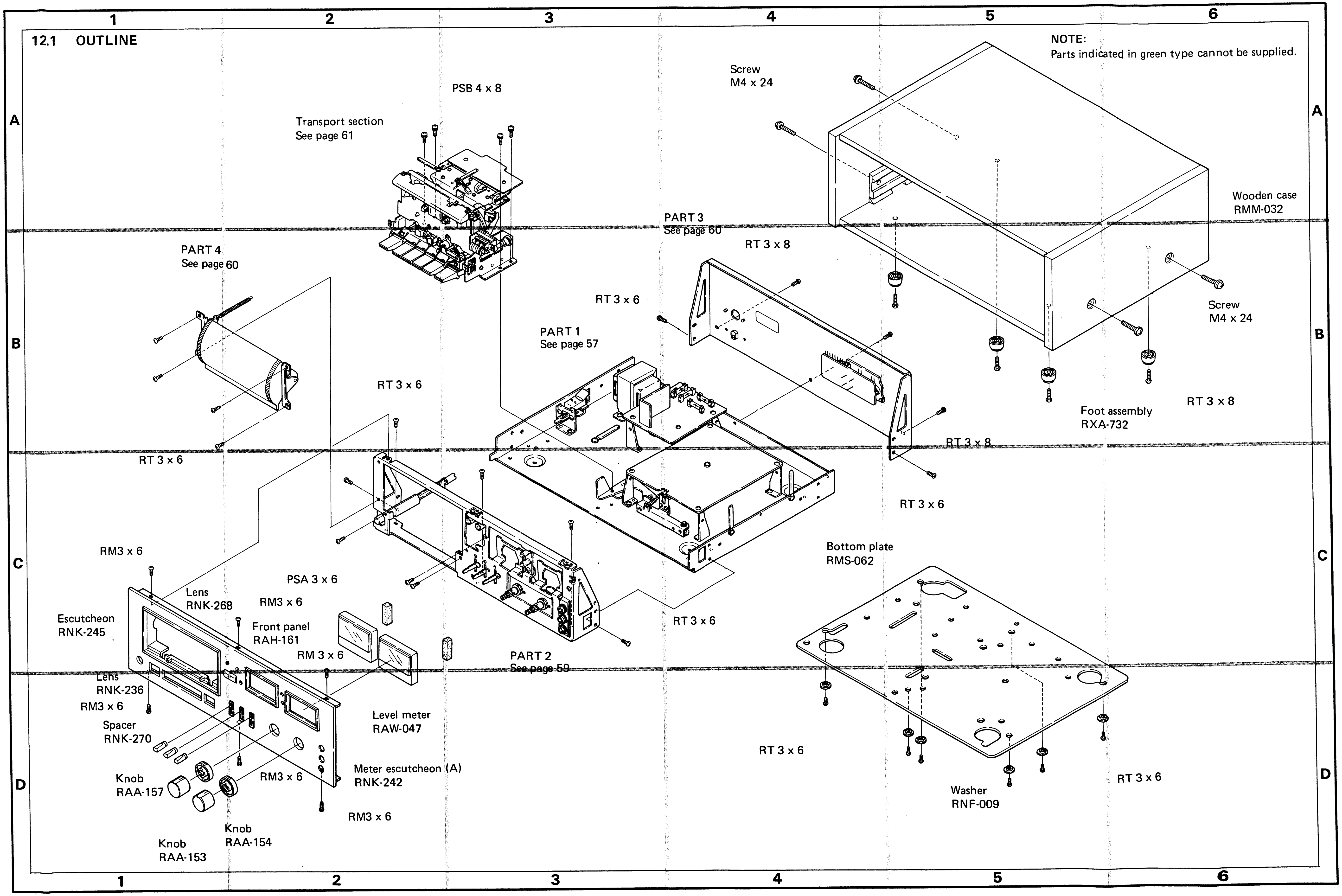
diameter in mm (*d*)

Symbol



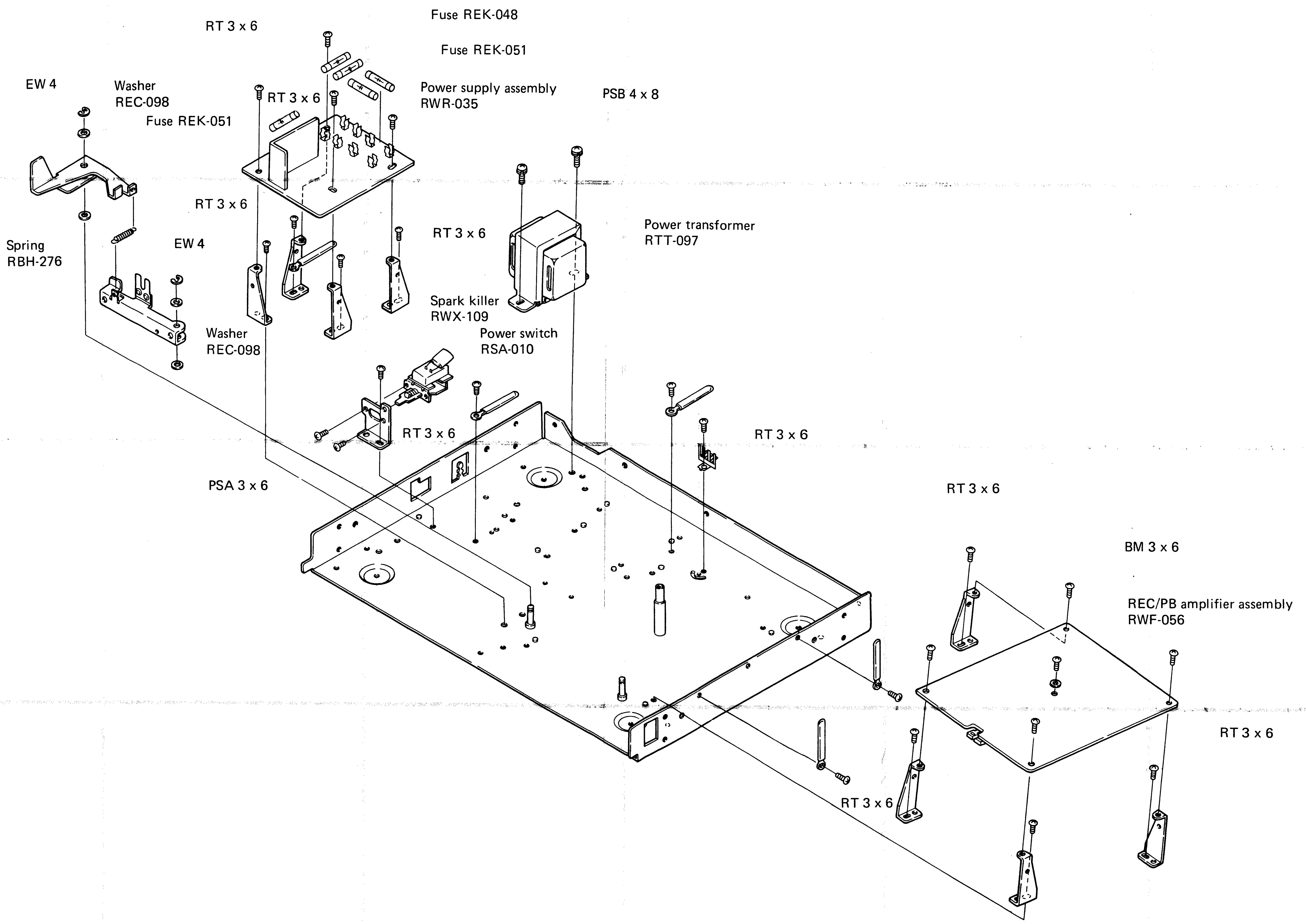
12.1 OUTLINE

NOTE:
Parts indicated in green type cannot be supplied.


1
2
3
4
5
6
A
B
C
D
Screw
M4 x 24
PSB 4 x 8
Transport section
See page 61
Wooden case
RMM-032
PART 3
See page 60
RT 3 x 8
PART 4
See page 60
RT 3 x 6
Screw
M4 x 24
PART 1
See page 57
RT 3 x 6
RT 3 x 8
Foot assembly
RXA-732
RT 3 x 8
RT 3 x 6
RT 3 x 6
Bottom plate
RMS-062
RM3 x 6
Lens
RNK-268
PSA 3 x 6
RM3 x 6
Escutcheon
RNK-245
Front panel
RAH-161
RT 3 x 6
RM 3 x 6
PART 2
See page 59
Lens
RNK-236
RM3 x 6
Level meter
RAW-047
Spacer
RNK-270
RT 3 x 6
Meter escutcheon (A)
RNK-242
Knob
RAA-157
RM3 x 6
RT 3 x 6
Washer
RNF-009
RM3 x 6
Knob
RAA-154
Knob
RAA-153

12.2 PART 1 MAIN CHASSIS

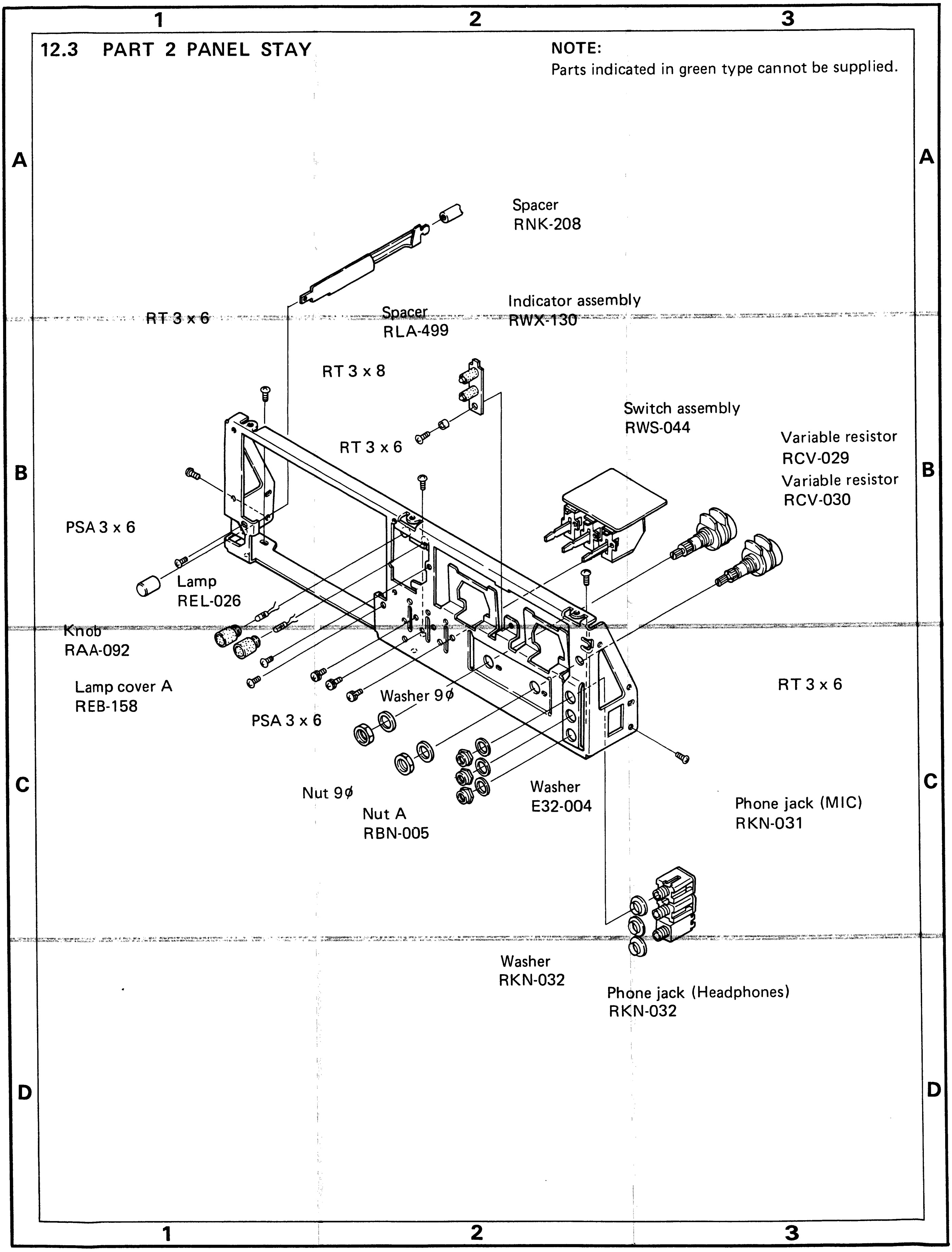
NOTE:
Parts indicated in green type cannot be supplied.



1
2
3
4
5
6
A
B
C
D
RT 3 x 6
Fuse REK-048
Fuse REK-051
EW 4
Washer
REC-098
Fuse REK-051
RT 3 x 6
Power supply assembly
RWR-035
PSB 4 x 8
RT 3 x 6
Spring
RBH-276
EW 4
RT 3 x 6
Power transformer
RTT-097
Spark killer
RWX-109
Washer
REC-098
Power switch
RSA-010
RT 3 x 6
RT 3 x 6
PSA 3 x 6
RT 3 x 6
BM 3 x 6
REC/PB amplifier assembly
RWF-056
RT 3 x 6
RT 3 x 6

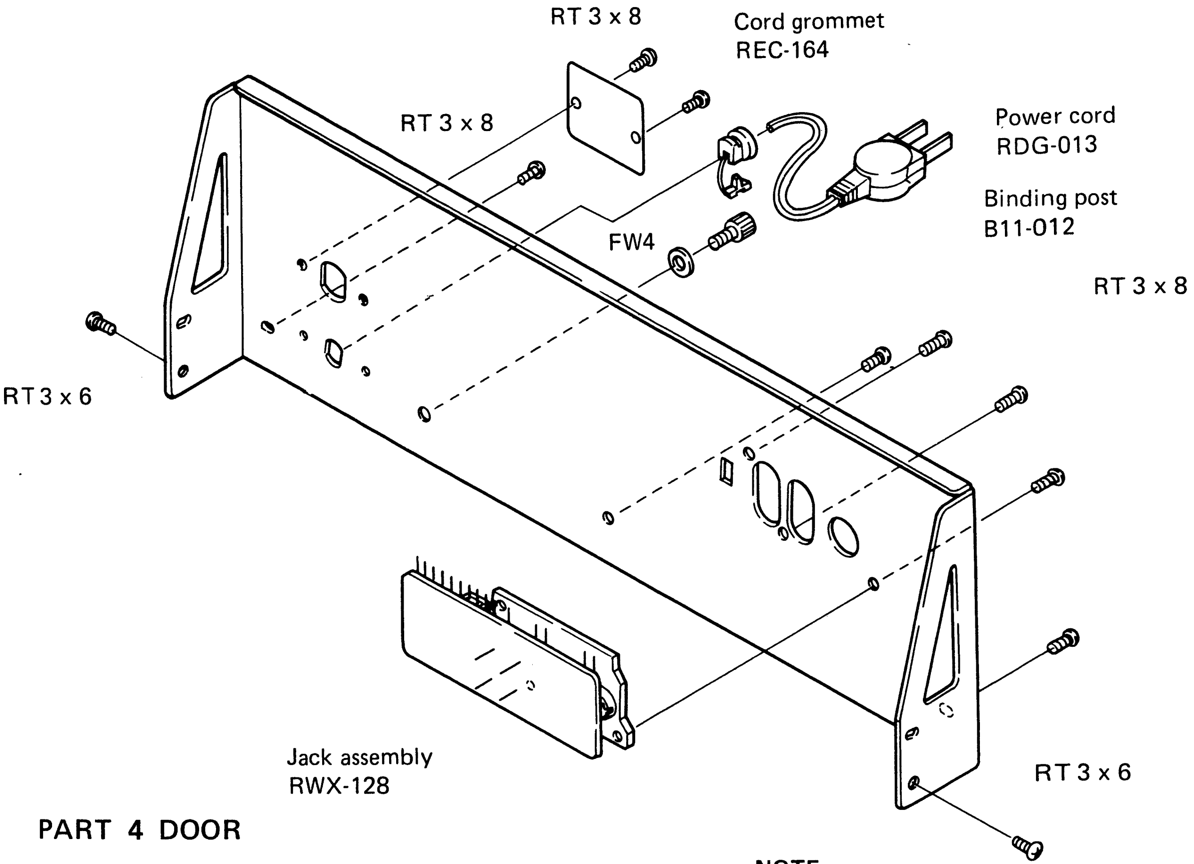
12.3 PART 2 PANEL STAY

NOTE:
Parts indicated in green type cannot be supplied.


1
2
3
A
B
C
D
Spacer
RNK-208
Indicator assembly
RWX-130
RT 3 x 6
Spacer
RLA-499
RT 3 x 8
RT 3 x 6
Switch assembly
RWS-044
Variable resistor
RCV-029
Variable resistor
RCV-030
PSA 3 x 6
Lamp
REL-026
Knob
RAA-092
Lamp cover A
REB-158
PSA 3 x 6
Washer 9ø
RT 3 x 6
Nut 9ø
Nut A
RBN-005
Washer
E32-004
Phone jack (MIC)
RKN-031
Washer
RKN-032
Phone jack (Headphones)
RKN-032

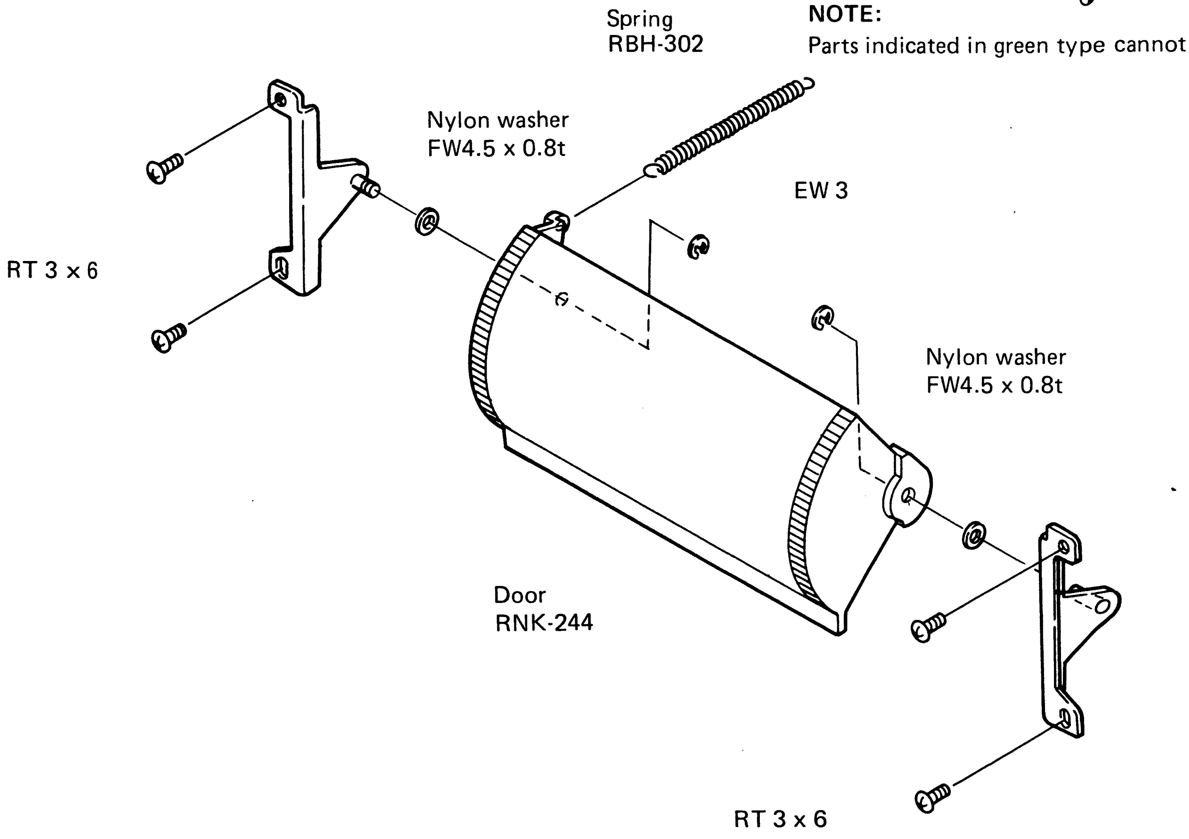
12.4 PART 3 REAR PANEL

NOTE:
Parts indicated in green type cannot be supplied.


RT 3 x 8
Cord grommet
REC-164
RT 3 x 8
Power cord
RDG-013
Binding post
B11-012
FW4
RT 3 x 8
RT 3 x 6
Jack assembly
RWX-128
RT 3 x 6

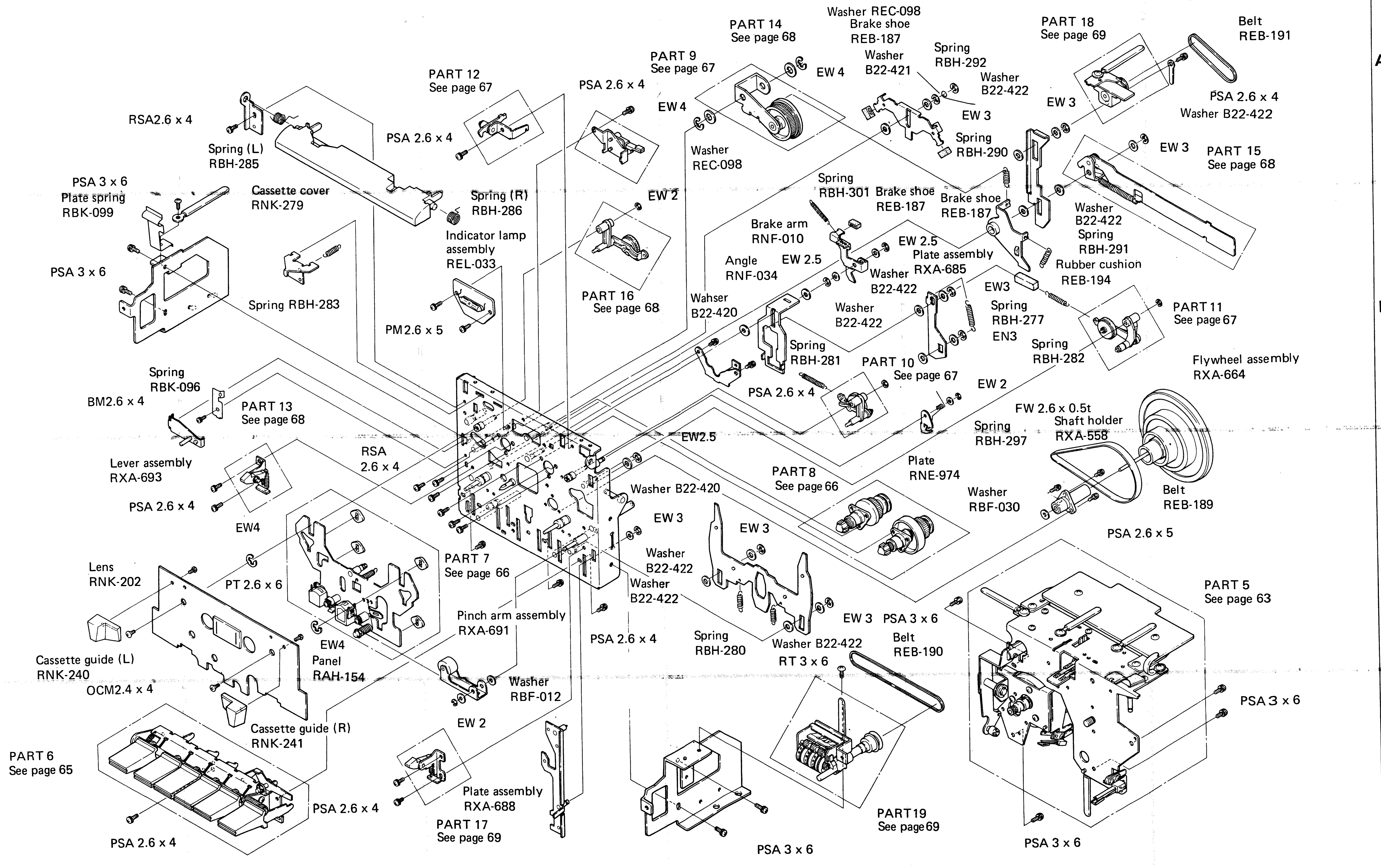
12.5 PART 4 DOOR

NOTE:
Parts indicated in green type cannot be supplied.


Spring
RBH-302
Nylon washer
FW4.5 x 0.8t
EW 3
RT 3 x 6
Nylon washer
FW4.5 x 0.8t
Door
RNK-244
RT 3 x 6

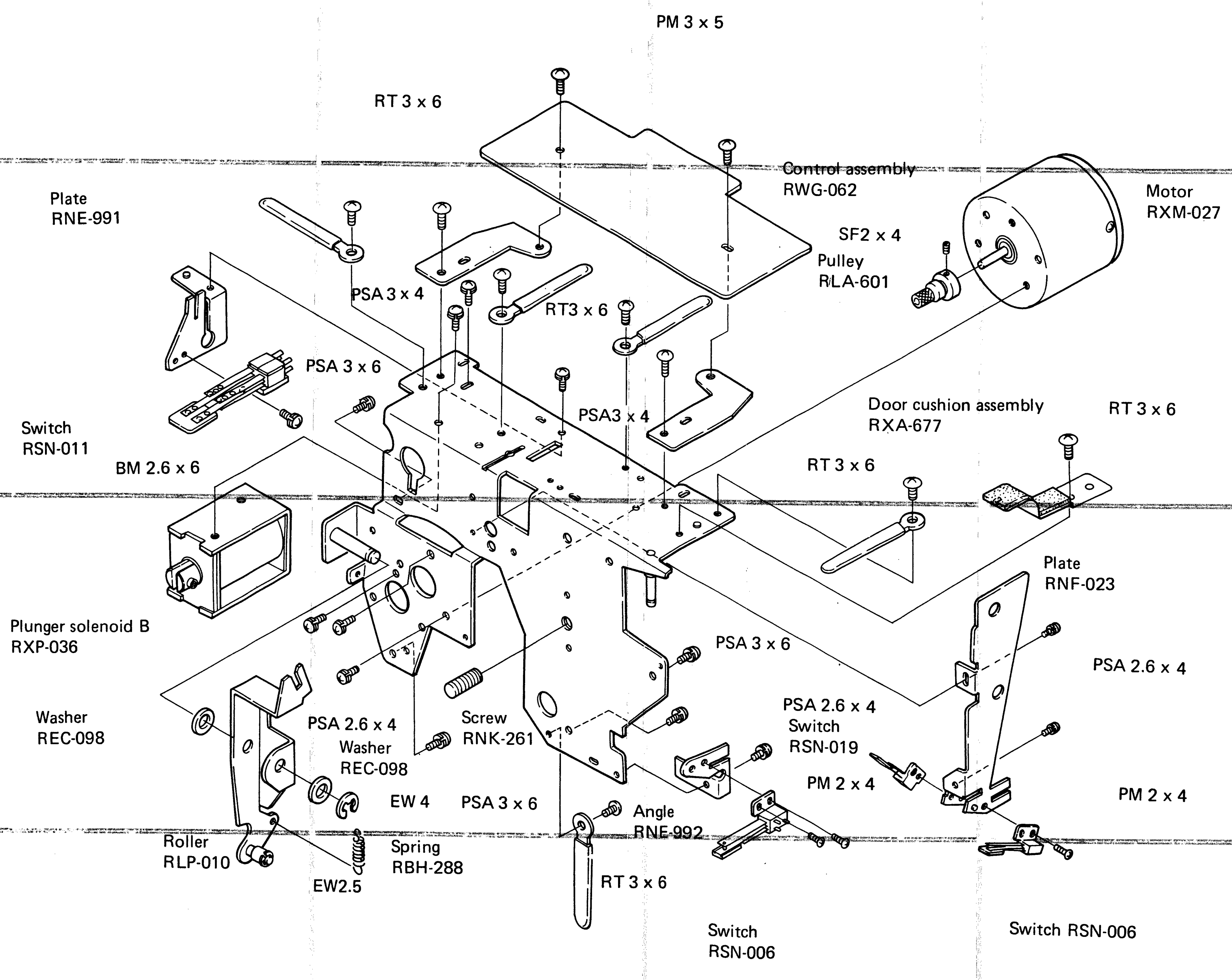
12.6 TRANSPORT SECTION

NOTE:
Parts indicated in green type cannot be supplied.

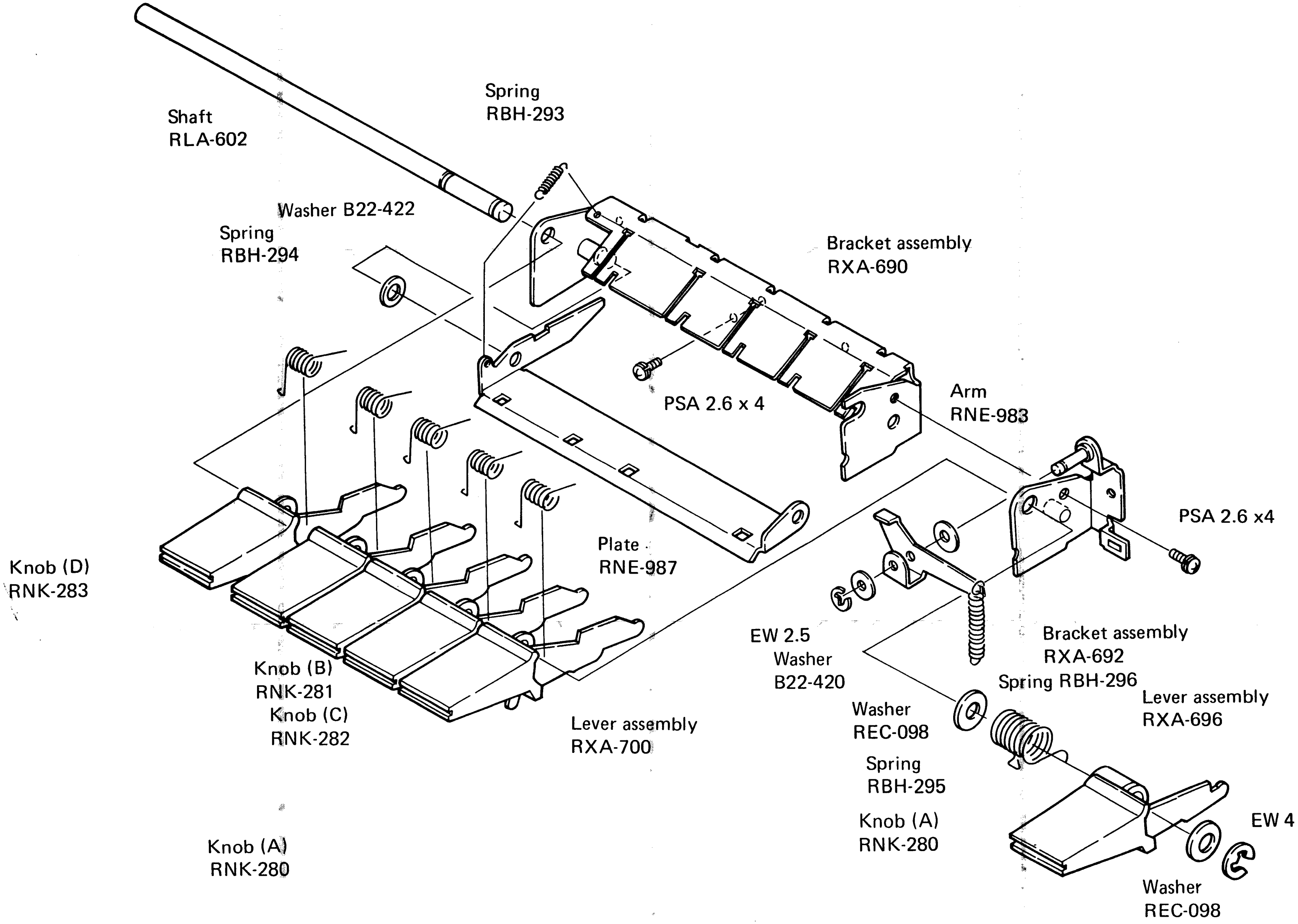

1
2
3
4
5
6
A
B
C
D
RSA2.6 x 4
Spring (L)
RBH-285
PART 12
See page 67
PSA 2.6 x 4
PSA 2.6 x 4
PART 9
See page 67
PART 14
See page 68
EW 4
EW 4
Washer REC-098
Brake shoe
REB-187
Washer
B22-421
Spring
RBH-292
Washer
B22-422
EW 3
PART 18
See page 69
Belt
REB-191
PSA 2.6 x 4
Washer B22-422
EW 3
Washer
REC-098
Spring
RBH-290
EW 3
PART 15
See page 68
PSA 3 x 6
Plate spring
RBK-099
Cassette cover
RNK-279
Spring (R)
RBH-286
EW 2
Spring
RBH-301
Brake shoe
REB-187
Brake shoe
REB-187
Washer
B22-422
Spring
RBH-291
Indicator lamp
assembly
REL-033
Brake arm
RNF-010
EW 2.5
Plate assembly
RXA-685
Rubber cushion
REB-194
PSA 3 x 6
Angle
RNF-034
EW 2.5
Washer
B22-422
EW3
PART 16
See page 68
Wahser
B22-420
Washer
B22-422
Spring
RBH-277
EN3
PART 11
See page 67
Spring RBH-283
PM2.6 x 5
Spring
RBH-281
Spring
RBH-282
PART 10
See page 67
Flywheel assembly
RXA-664
Spring
RBK-096
BM2.6 x 4
PART 13
See page 68
PSA 2.6 x 4
EW 2
FW 2.6 x 0.5t
Shaft holder
RXA-558
Spring
RBH-297
EW2.5
RSA
2.6 x 4
Lever assembly
RXA-693
PART 8
See page 66
Plate
RNE-974
Washer
RBF-030
Belt
REB-189
PSA 2.6 x 4
Washer B22-420
EW4
EW 3
EW 3
PSA 2.6 x 5
PART 7
See page 66
Washer
B22-422
Lens
RNK-202
PT 2.6 x 6
Washer
B22-422
PART 5
See page 63
Pinch arm assembly
RXA-691
EW 3
PSA 3 x 6
Spring
RBH-280
Belt
REB-190
PSA 2.6 x 4
Washer B22-422
RT 3 x 6
EW4
Panel
RAH-154
Cassette guide (L)
RNK-240
OCM2.4 x 4
Washer
RBF-012
PSA 3 x 6
Cassette guide (R)
RNK-241
EW 2
PART 6
See page 65
Plate assembly
RXA-688
PSA 2.6 x 4
PART19
See page 69
PART 17
See page 69
PSA 2.6 x 4
PSA 3 x 6
PSA 3 x 6

12.7 PART 5 TRANSPORT CHASSIS

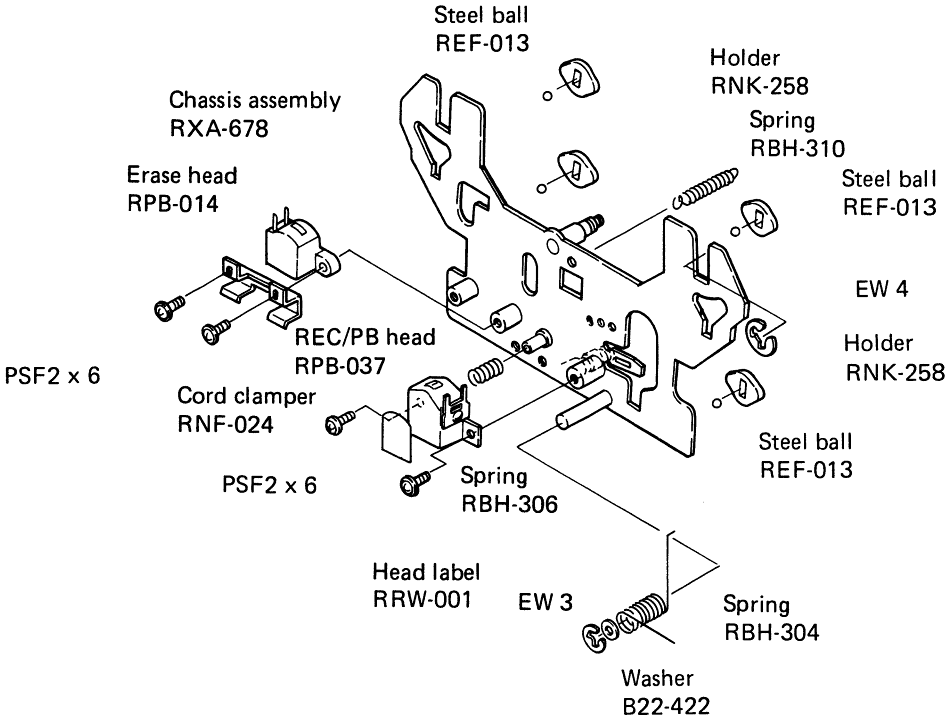
NOTE:
Parts indicated in green type cannot be supplied.


PM 3 x 5
RT 3 x 6
Control assembly RWG-062
Motor RXM-027
Plate RNE-991
SF2 x 4
Pulley RLA-601
PSA 3 x 4
RT3 x 6
PSA 3 x 6
Switch RSN-011
PSA3 x 4
Door cushion assembly RXA-677
RT 3 x 6
BM 2.6 x 6
RT 3 x 6
Plate RNF-023
Plunger solenoid B RXP-036
PSA 3 x 6
PSA 2.6 x 4
Washer REC-098
PSA 2.6 x 4
Screw RNK-261
Washer REC-098
PSA 2.6 x 4
Switch RSN-019
PM 2 x 4
PM 2 x 4
EW 4
PSA 3 x 6
Angle RNE-992
Roller RLP-010
Spring RBH-288
EW2.5
RT 3 x 6
Switch RSN-006
Switch RSN-006

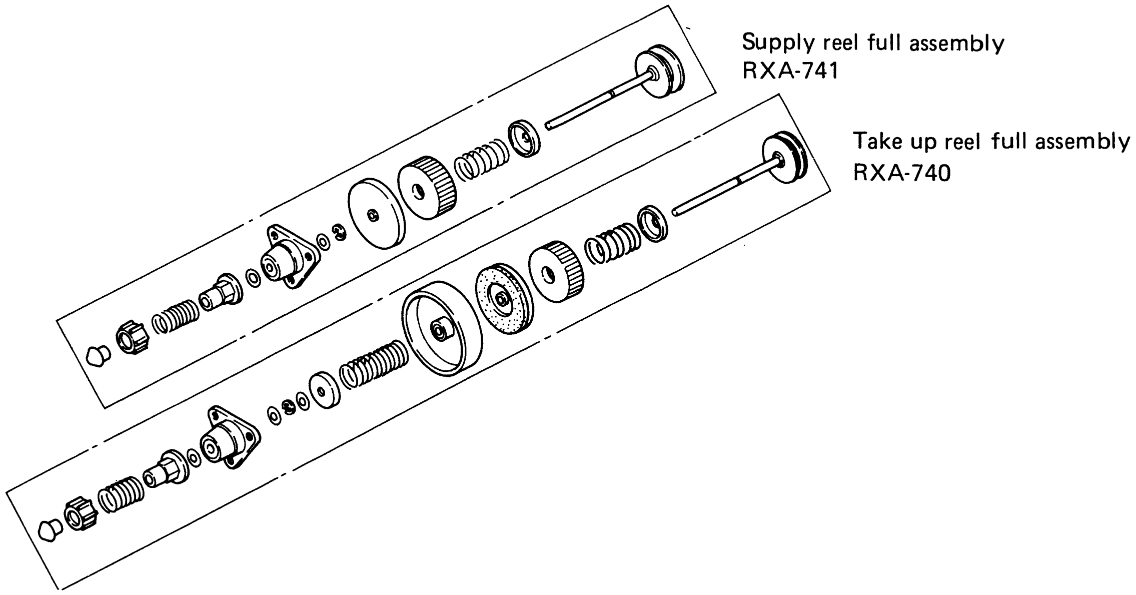
12.8 PART 6 OPERATING LEVERS


Shaft
RLA-602
Spring
RBH-293
Washer B22-422
Spring
RBH-294
Bracket assembly
RXA-690
PSA 2.6 x 4
Arm
RNE-983
PSA 2.6 x4
Plate
RNE-987
Knob (D)
RNK-283
EW 2.5
Washer
B22-420
Bracket assembly
RXA-692
Spring RBH-296
Lever assembly
RXA-696
Knob (B)
RNK-281
Knob (C)
RNK-282
Lever assembly
RXA-700
Washer
REC-098
Spring
RBH-295
Knob (A)
RNK-280
EW 4
Knob (A)
RNK-280
Washer
REC-098

12.9 PART 7 SUB-CHASSIS

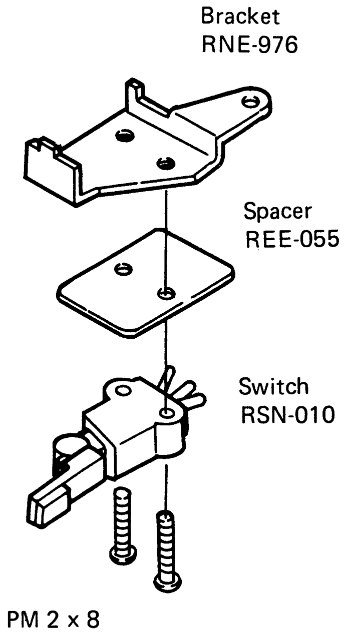

Steel ball
REF-013
Holder
RNK-258
Chassis assembly
RXA-678
Spring
RBH-310
Erase head
RPB-014
Steel ball
REF-013
EW 4
REC/PB head
RPB-037
Holder
RNK-258
PSF2 x 6
Cord clamper
RNF-024
Steel ball
REF-013
PSF2 x 6
Spring
RBH-306
Head label
RRW-001
EW 3
Spring
RBH-304
Washer
B22-422

12.10 PART 8 REEL ASSEMBLY

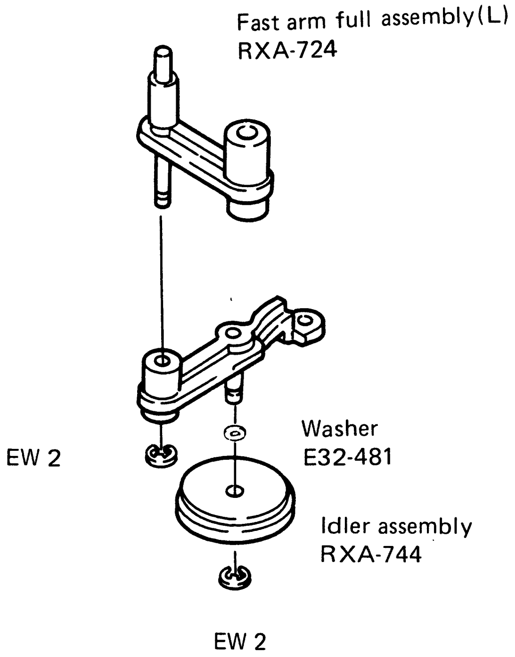

Supply reel full assembly
RXA-741
Take up reel full assembly
RXA-740

NOTE:
Parts indicated in green type cannot be supplied.

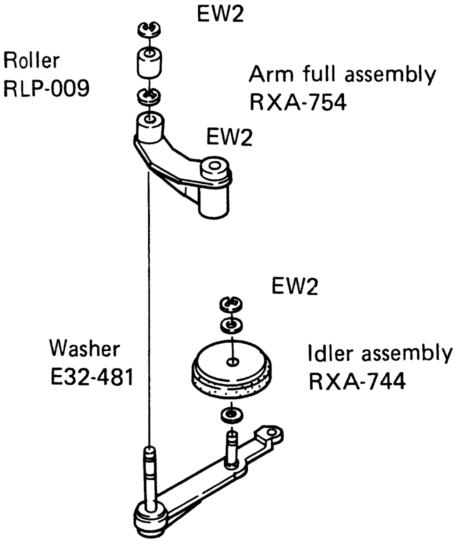
12.11 PART 9


Bracket
RNE-976
Spacer
REE-055
Switch
RSN-010
PM 2 x 8

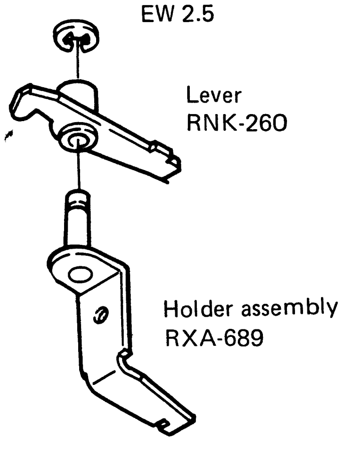
12.12 PART 10


Fast arm full assembly(L)
RXA-724
EW 2
Washer
E32-481
Idler assembly
RXA-744
EW 2

12.13 PART 11

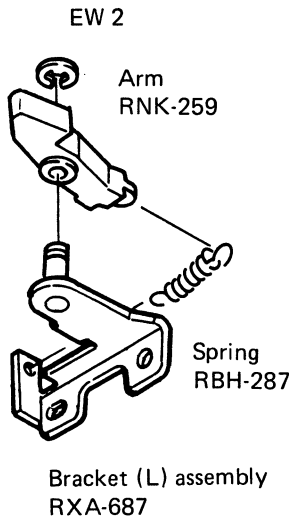

EW2
Roller
RLP-009
Arm full assembly
RXA-754
EW2
EW2
Washer
E32-481
Idler assembly
RXA-744

12.14 PART 12

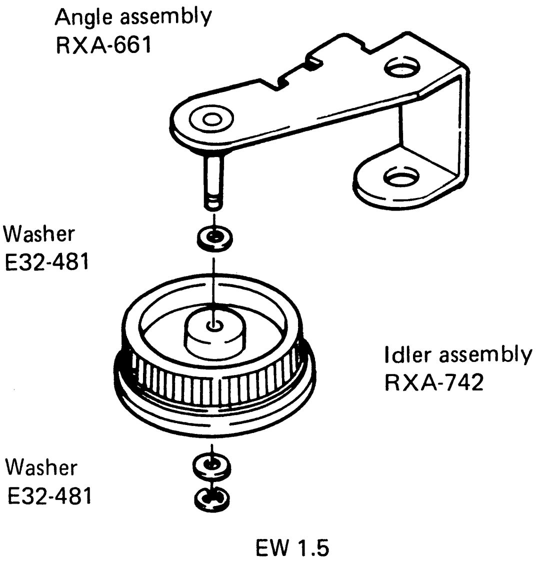

EW 2.5
Lever
RNK-260
Holder assembly
RXA-689

NOTE:
Parts indicated in green type cannot be supplied.

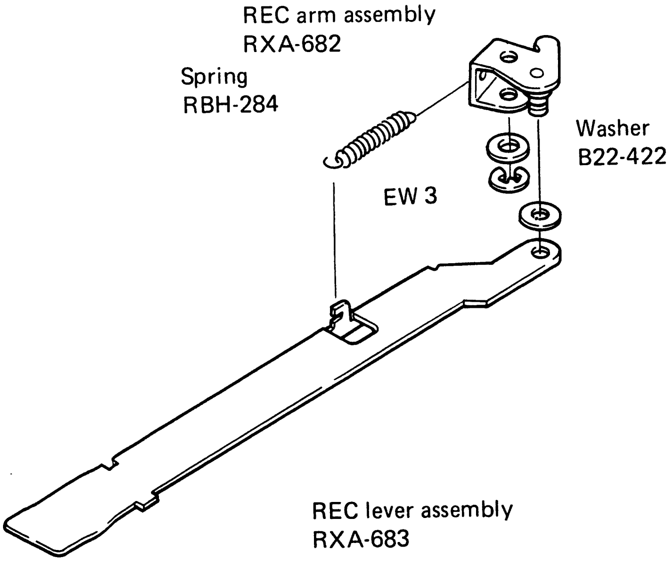
12.15 PART 13


EW 2
Arm
RNK-259
Spring
RBH-287
Bracket (L) assembly
RXA-687

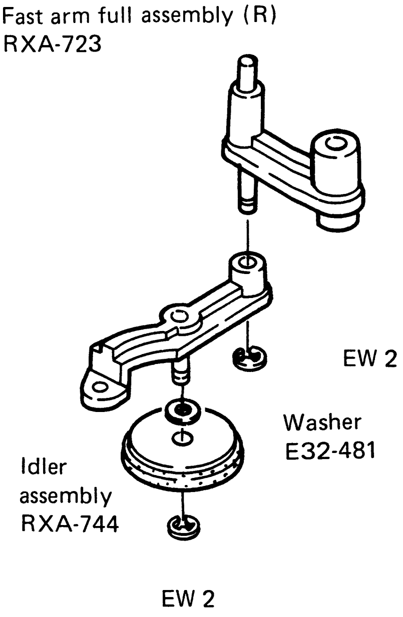
12.16 PART 14


Angle assembly
RXA-661
Washer
E32-481
Idler assembly
RXA-742
Washer
E32-481
EW 1.5

12.17 PART 15

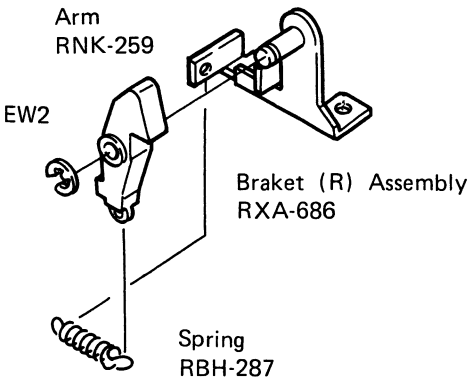

REC arm assembly
RXA-682
Spring
RBH-284
Washer
B22-422
EW 3
REC lever assembly
RXA-683

12.18 PART 16

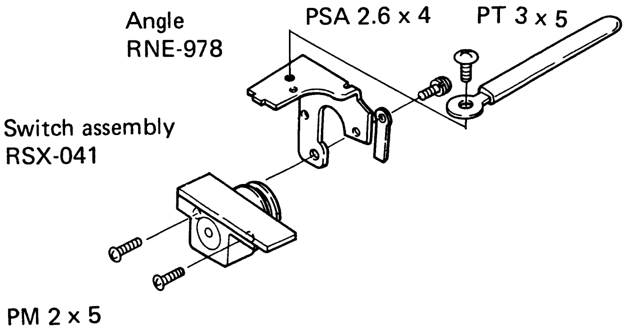

Fast arm full assembly (R)
RXA-723
EW 2
Washer
E32-481
Idler
assembly
RXA-744
EW 2

NOTE:
Parts indicated in green type cannot be supplied

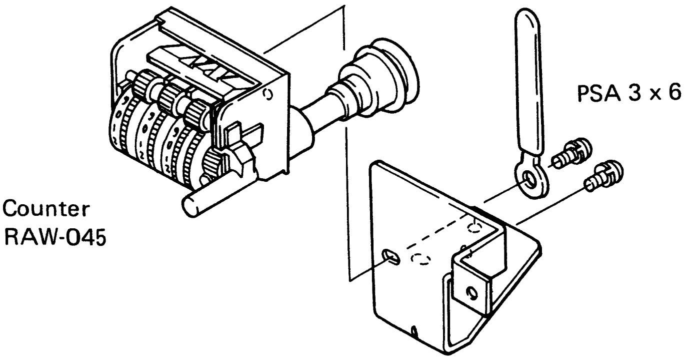
12.19 PART 17


Arm
RNK-259
EW2
Braket (R) Assembly
RXA-686
Spring
RBH-287

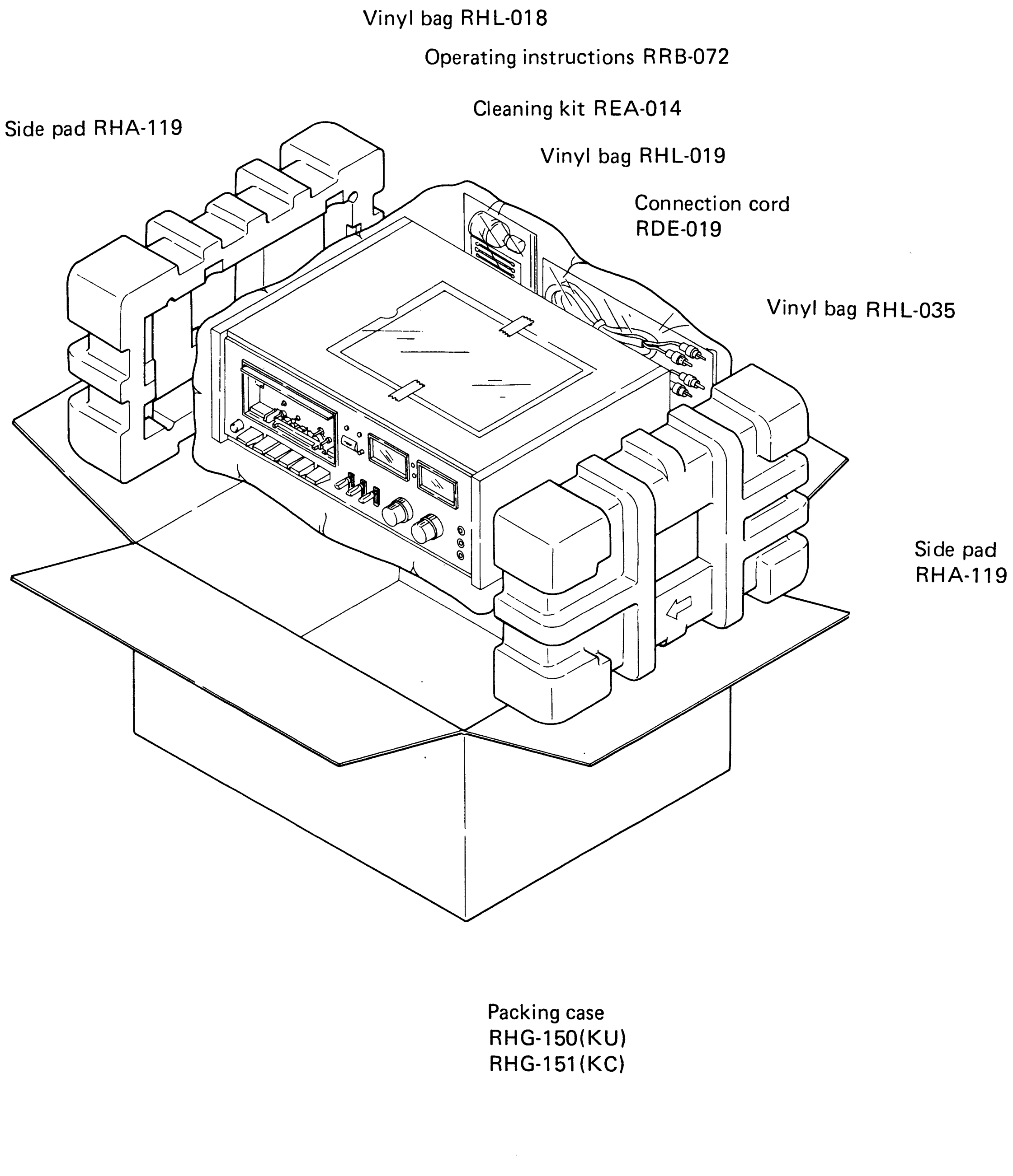
12.20 PART 18


Angle
RNE-978
PSA 2.6 x 4
PT 3 x 5
Switch assembly
RSX-041
PM 2 x 5

12.21 PART 19


PSA 3 x 6
Counter
RAW-045

13. PACKING


Vinyl bag RHL-018
Operating instructions RRB-072
Cleaning kit REA-014
Side pad RHA-119
Vinyl bag RHL-019
Connection cord RDE-019
Vinyl bag RHL-035
Side pad RHA-119
Packing case RHG-150(KU) RHG-151(KC)

CASSETTE TAPE DECK

CT-F7272
D

CT-F7070
HG D

Additional
Service Manual

NOTE:
This leaflet provides the description of the parts applies only to the CT-F7272/D, CT-F7070/D and CT-F7070/HG model.
For detailed please refer to the Service Manual of CT-7272/KCU.

1. SPECIFICTIONS

MODEL CT-F7272/KCU

Power Requirements	AC 120V, 60Hz
Power Consumption	17 Watts, max.
Dimensions	453(W) x 177(H) x 343(D)mm. max. 17-13/16(W) x 6-15/16(H) x 13-1/2(D) in.
Weight	Without package: 9.5kg 21 lb

MODEL CT-F7272/D

Power Requirements	AC 120V, 220V, 240V, 50Hz/60Hz
Power Consumption	18 Watts, max.
Dimensions	453(W) x 177(H) x 350(D)mm. max. 17-13/16(W) x 6-15/16(H) x 13-3/4(D) in.
Weight	Without package: 9.5kg 21 lb

MODEL CT-F7070/HG

Power Requirements	AC 220V, 240V, 50Hz/60Hz
Power Consumption	18 Watts, max.
Dimensions	420(W) x 150(H) x 350(D)mm. max. 16-1/2(W) x 5-15/16(H) x 13-3/4(D) in.
Weight	Without package: 8.5kg 18 lb 11 oz

MODEL CT-F7070/D

Power Requirements	AC 120V, 220V, 240V, 50Hz/60Hz
Power Consumption	18 Watts, max.
Dimensions	420(W) x 150(H) x 350(D)mm. max. 16-1/2(W) x 5-15/16(H) x 13-3/4(D) in.
Weight	Without package: 8.5kg 18 lb 11 oz

PIONEER®

2. CONTRAST OF MISCELLANEOUS PARTS

ASSEMBLY

Part Name	Part No.				Remarks
	CT-F7272/KCU	CT-F7272/D	CT-F7070/HG	CT-F7070/D	
Power supply assembly	RWR-035	RWR-039	RWR-036	RWR-039	

TRANSFORMER

Symbol	Part Name	Part No.				Remarks
		CT-F7272/KCU	CT-F7272/D	CT-F7070/HG	CT-F7070/D	
T1	Power Transformer	RTT-097	RTT-099	RTT-098	RTT-099	

SWITCHS

Symbol	Part Name	Part No.				Remarks
		CT-F7272/KCU	CT-F7272/D	CT-F7070/HG	CT-F7070/D	
	Power switch	RSA-010	RSA-009	RSA-015	RSA-009	
	Plugin selector (Line voltage selector)	....	RKR-020	RKR-019	RKR-020	

FUSES (PRIMARY SIDE)

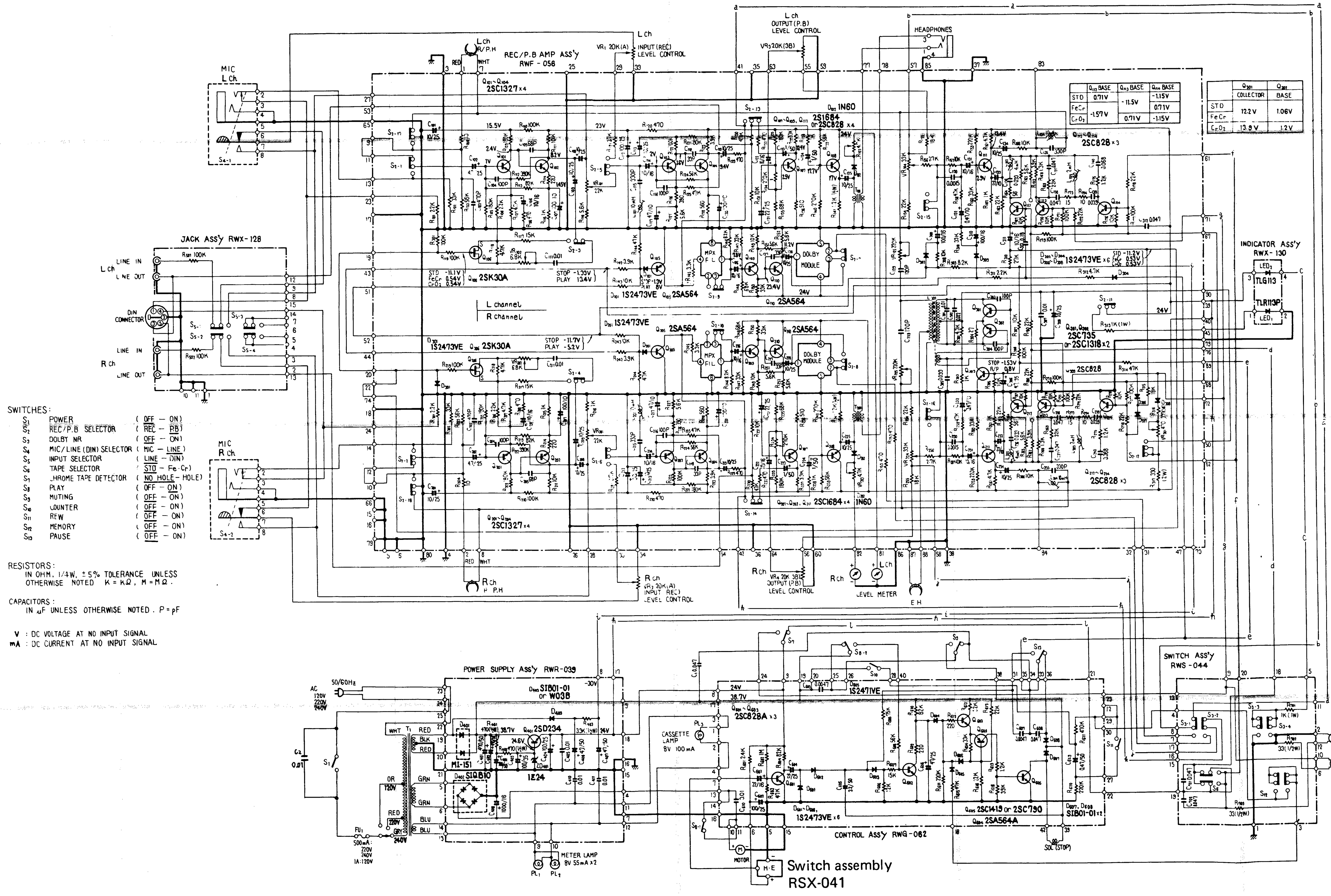
Symbol	Part Name	Part No.				Remarks
		CT-F7272/KCU	CT-F7272/D	CT-F7070/HG	CT-7070/D	
	0.5A	....	REK-048	REK-049	REK-048	
	1A	....	REK-051	....	REK-051	

OTHERS

Part Name	Part No.				Remarks
	CT-F7272/KCU	CT-F7272/D	CT-F7070/HG	CT-F7070/D	
Spark killer C2 capacitor	RWX-109	.... C43-003	....	.... C43-003	
AC power cord	RDG-013	ADG-004	....	ADG-004	
ACsocket(INLET)	....	....	RKP-014	....	
Front panel	RAH-161	RAH-161	RAH-162	RAH-162	
Cabinet case	RMM-032	RMM-032	RXA-676	RXA-676	
Operating instructions	RRB-072	RRB-067	RRB-074 RRD-021	RRB-074	English German/French
Packing case	RHG-150(KU) RHG-151(KC)	RHG-152	RHG-161	RHG-153	

3. MODEL CT-F7272/D

3.1 SCHEMATIC DIAGRAM


1
2
3
4
5
6
A
B
C
D
MIC L ch
MIC R ch
S4-1
S4-2
JACK ASS'Y RWX-128
LINE IN
L ch
LINE OUT
DIN CONNECTOR
R ch
R501 100K
R502 100K
Lch R/P.H
REC/P.B AMP ASS'Y RWF-056
Q101~Q104 2SC1327×4
Q201~Q204 2SC1327×4
VR1 20K(A) INPUT (REC) LEVEL CONTROL
VR3 20K(3B) OUTPUT (P.B) LEVEL CONTROL
HEADPHONES
D101 1N60
Q105~Q107, Q111 2S1684 or 2SC828×4
Q205~Q207, Q211 2SC1684×4 1N60
Q112~Q114 2SC828×3
Q212~Q214 2SC828×3
Q108 2SK30A
Q208 2SK30A
D102 1S2473VE
Q109 2SA564
Q209 2SA564
Q210 2SA564
MPX FIL
DOLBY MODULE
L channel
R channel
STD -1.1V
FeCr 0.54V
CrO2 0.54V
STOP -1.33V PLAY 1.34V
STOP -11.7V PLAY -5.2V
INDICATOR ASS'Y RWX-130
LED1 TLG113
LED2 TLR113P
Q301, Q302 2SC735 or 2SC1318×2
Q303 2SC828
D301~D306 1S2473VE×6
LEVEL METER
E.H
R ch P.H
VR2 20K(A) INPUT (REC) LEVEL CONTROL
VR4 20K(3B) OUTPUT (P.B) LEVEL CONTROL
POWER SUPPLY ASS'Y RWR-039
AC 120V 220V 240V
50/60Hz
S1
T1
D401 S1B01-01 or W03B
D402 S1QB10
Q401 2SD234
D403 1E24
MI-151
FU1 500mA 240V 1A 120V
METER LAMP 8V 55mA×2
PL1 PL2
CASSETTE LAMP 8V 100mA
PL3
Q601~Q603 2SC828A×3
D601~D606 1S2473VE×6
D607 1S2471VE
Q604 2SC1419 or 2SC790
D607, D608 S1B01-01×2
Q605 2SA564A
CONTROL ASS'Y RWG-062
SOL (STOP)
MOTOR
H·E
SWITCH ASS'Y RWS-044
PL4 (FeCr)
PL5 (CrO2)
26V 30mA×2

Q112 BASE	Q113 BASE	Q114 BASE
STD	0.71V	-11.5V	-1.15V
FeCr	-1.57V		0.71V
CrO2		0.71V	-1.15V

	Q301	Q302
	COLLECTOR	BASE
STD	12.2 V	1.06V
FeCr		
CrO2	13.9 V	1.2 V

Switch assembly
RSX-041

SWITCHES:

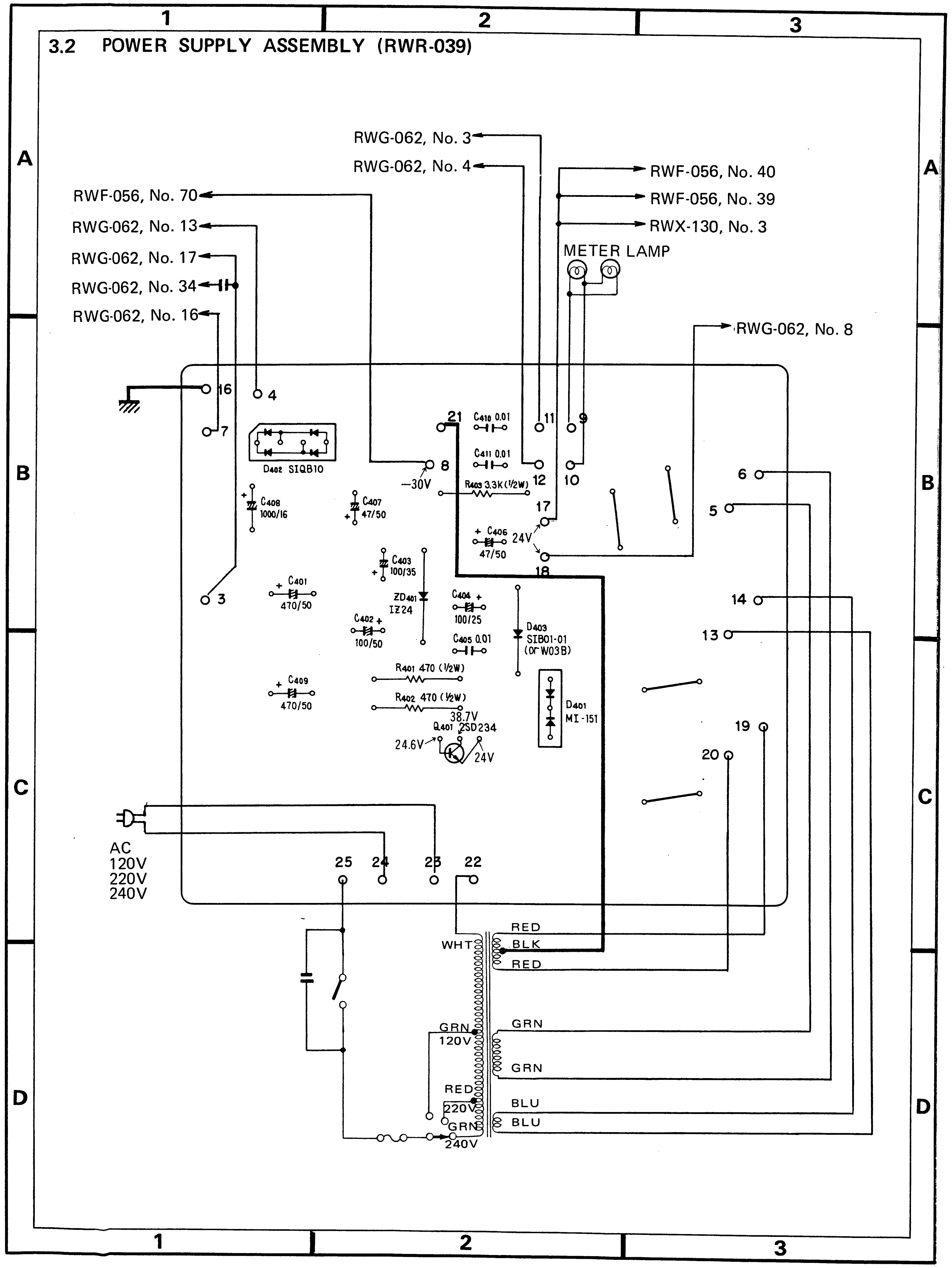
S_1	POWER	(OFF – ON)
S_2	REC/P.B SELECTOR	(REC – P.B)
S_3	DOLBY NR	(OFF – ON)
S_4	MIC/LINE (DIN) SELECTOR	(MIC – LINE)
S_5	INPUT SELECTOR	(LINE – DIN)
S_6	TAPE SELECTOR	(STD – Fe·Cr)
S_7	CHROME TAPE DETECTOR	(NO HOLE – HOLE)
S_8	PLAY	(OFF – ON)
S_9	MUTING	(OFF – ON)
S_{10}	COUNTER	(OFF – ON)
S_{11}	REW	(OFF – ON)
S_{12}	MEMORY	(OFF – ON)
S_{13}	PAUSE	(OFF – ON)

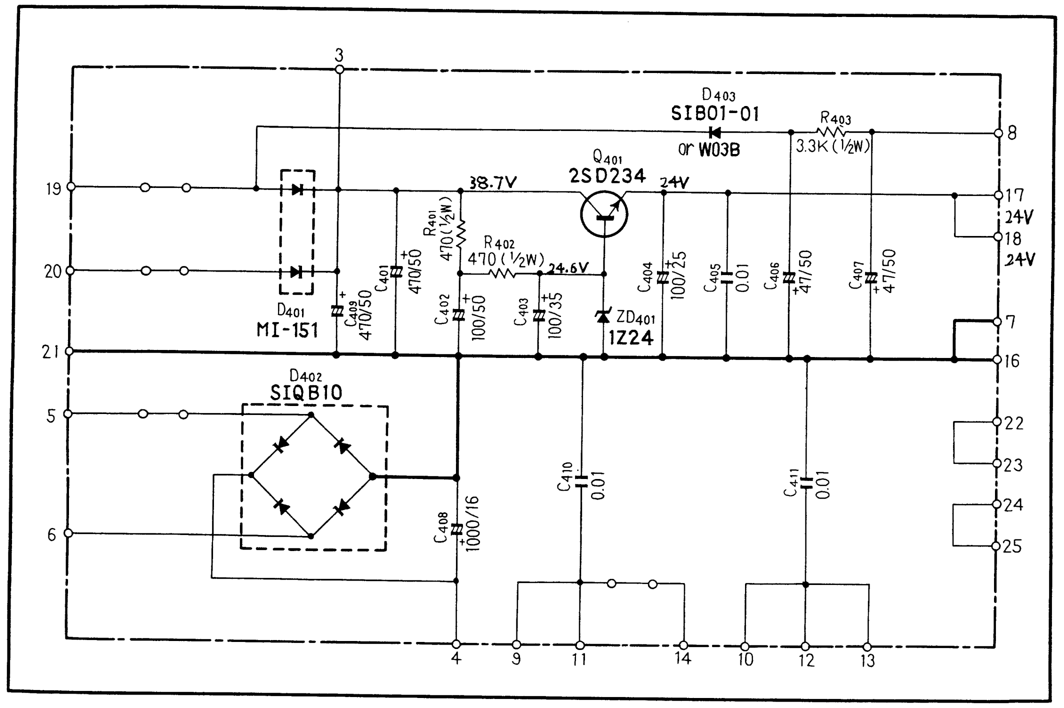
RESISTORS:
IN OHM, 1/4W, ±5% TOLERANCE UNLESS OTHERWISE NOTED K = kΩ, M = MΩ.

CAPACITORS:
IN μF UNLESS OTHERWISE NOTED. P = pF

V : DC VOLTAGE AT NO INPUT SIGNAL
mA : DC CURRENT AT NO INPUT SIGNAL

3.2 POWER SUPPLY ASSEMBLY (RWR-039)


1
2
3
A
B
C
D
RWG-062, No. 3
RWG-062, No. 4
RWF-056, No. 40
RWF-056, No. 39
RWX-130, No. 3
METER LAMP
RWF-056, No. 70
RWG-062, No. 13
RWG-062, No. 17
RWG-062, No. 34
RWG-062, No. 16
RWG-062, No. 8
D402 SIQB10
C408 1000/16
C407 47/50
C410 0.01
C411 0.01
R403 3.3K (1/2W)
−30V
C406 47/50
24V
C403 100/35
ZD401 1Z24
C404 100/25
C401 470/50
C402 100/50
C405 0.01
D403 SIB01-01 (or W03B)
R401 470 (1/2W)
R402 470 (1/2W)
38.7V
Q401 2SD234
24.6V
24V
D401 MI-151
C409 470/50
AC 120V 220V 240V
WHT
RED
BLK
RED
GRN
GRN 120V
GRN
RED 220V
GRN 240V
BLU
BLU


D403 SIB01-01 or W03B
R403 3.3K (1/2W)
Q401 2SD234
38.7V
24V
R401 470 (1/2W)
R402 470 (1/2W)
24.6V
D401 MI-151
C409 470/50
C401 470/50
C402 100/50
C403 100/35
ZD401 1Z24
C404 100/25
C405 0.01
C406 47/50
C407 47/50
24V
24V
D402 SIQB10
C408 1000/16
C410 0.01
C411 0.01
3
8
17
18
7
16
19
20
21
5
6
22
23
24
25
4
9
11
14
10
12
13

Parts List

SEMICONDUCTORS

Symbol	Description	Part No.
Q401	Transistor	2SD234-0 (or 2SD234-Y)
ZD401	Zener diode	1Z24
D401	Diode	MI-151
D402	Diode	SIQB10
D403	Diode	SIB01-01 or (SIB01-02) (W03B) (W03C)

CAPACITORS

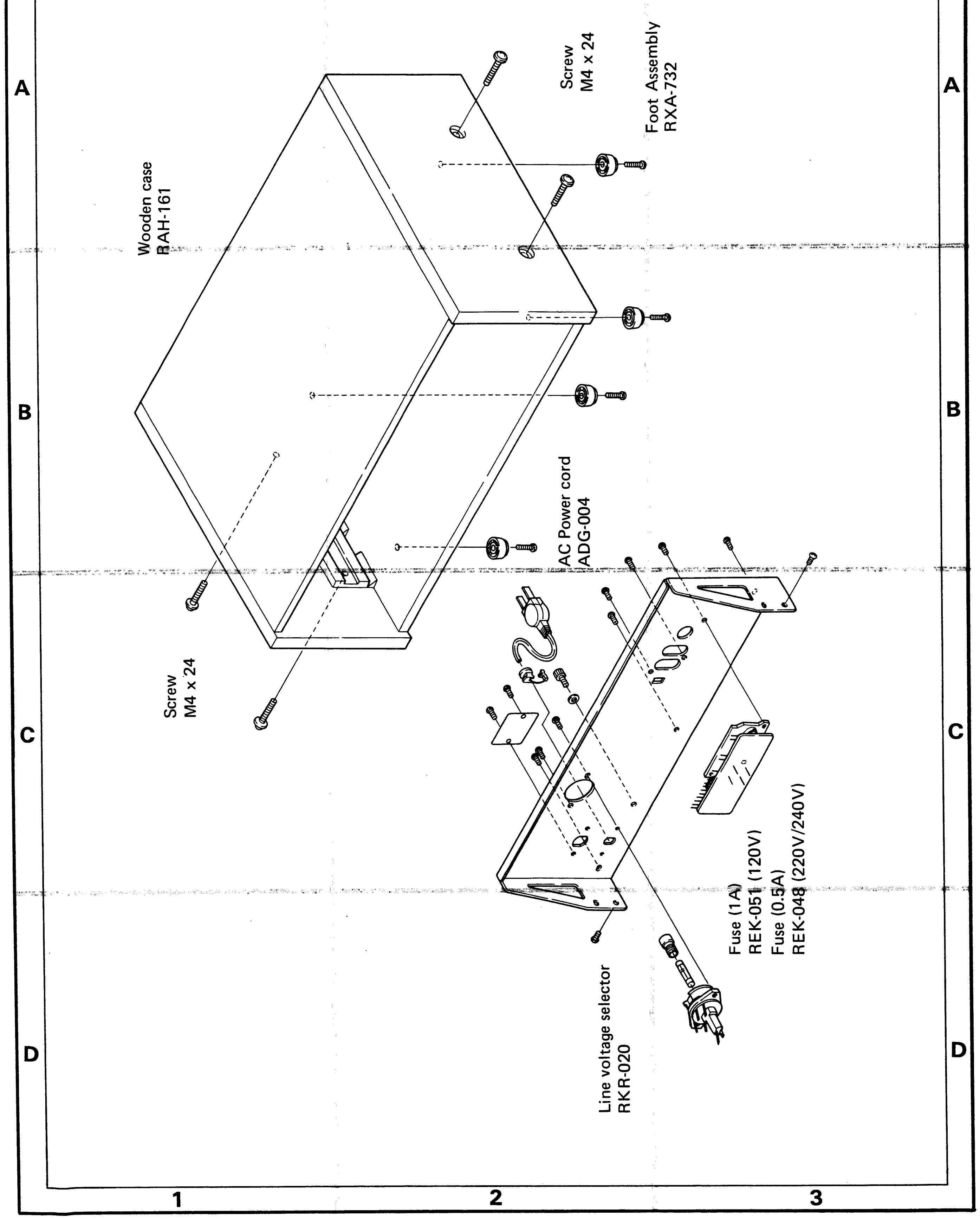
Symbol	Description			Part No.
C401	Electrolytic	470	50V	CEA 471P 50
C402	Electrolytic	100	50V	CEA 101P 50
C403	Electrolytic	100	35V	CEA 101P 35
C404	Electrolytic	100	25V	CEA 101P 25
C405	Ceramic	0.01	50V	CKDYF 103Z 50
C406	Electrolytic	47	50V	CEA 470P 50
C407	Electrolytic	47	50V	CEA 470P 50
C408	Electrolytic	1000	16V	CEA 102P 16
C409	Electrolytic	470	50V	CEA 471P 50
C410	Ceramic	0.01	50V	CKDYF 103Z 50
C411	Ceramic	0.01	50V	CKDYF 103Z 50

RESISTORS

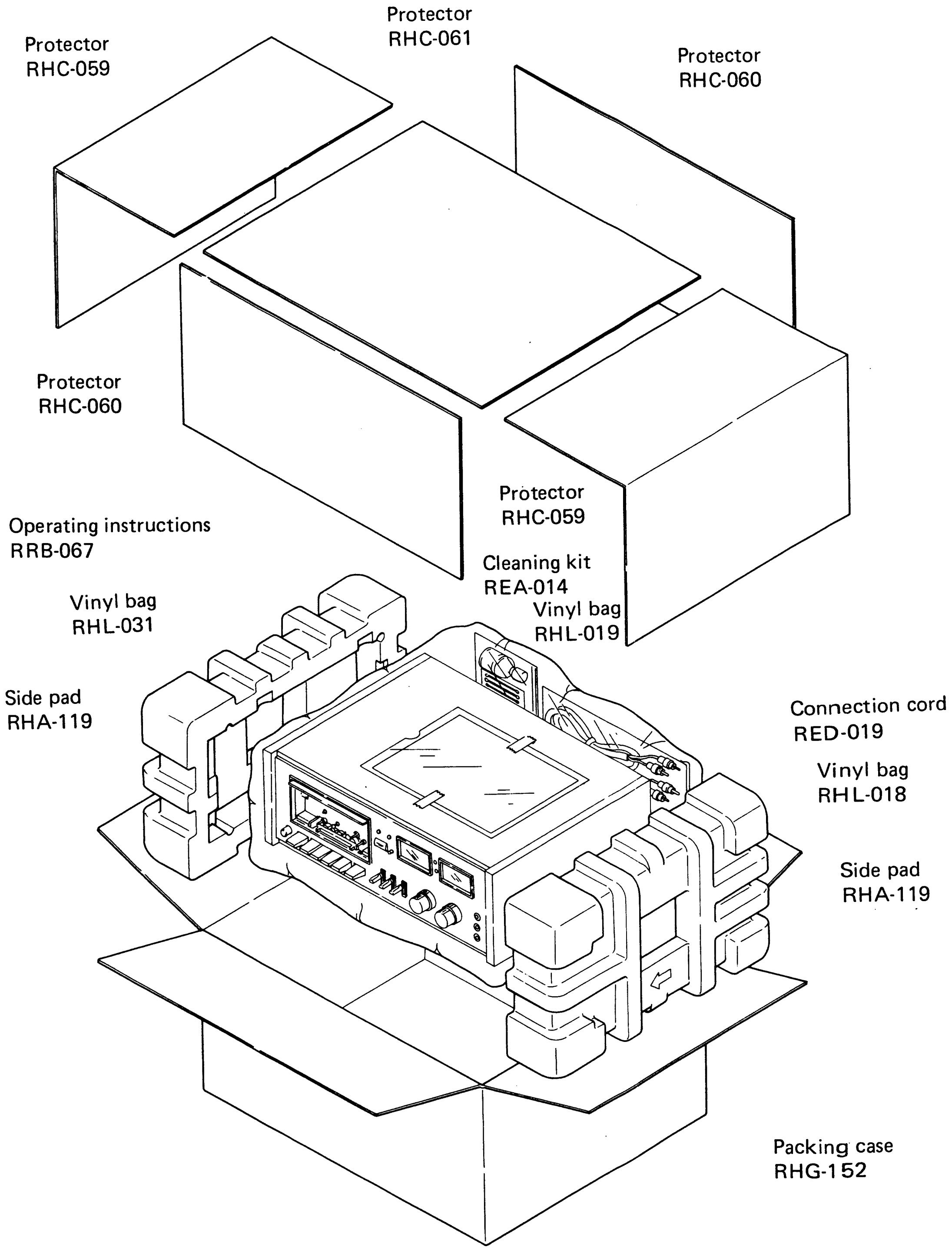
Symbol	Description			Part No.
R401	Carbon film	470	½W	RD½PSF 471J
R402	Carbon film	470	½W	RD½PSF 471J
R403	Carbon film	3.3k	½W	RD½PS 332J

3.3 REAR PANEL

NOTE:
Parts indicated in green type cannot be supplied.

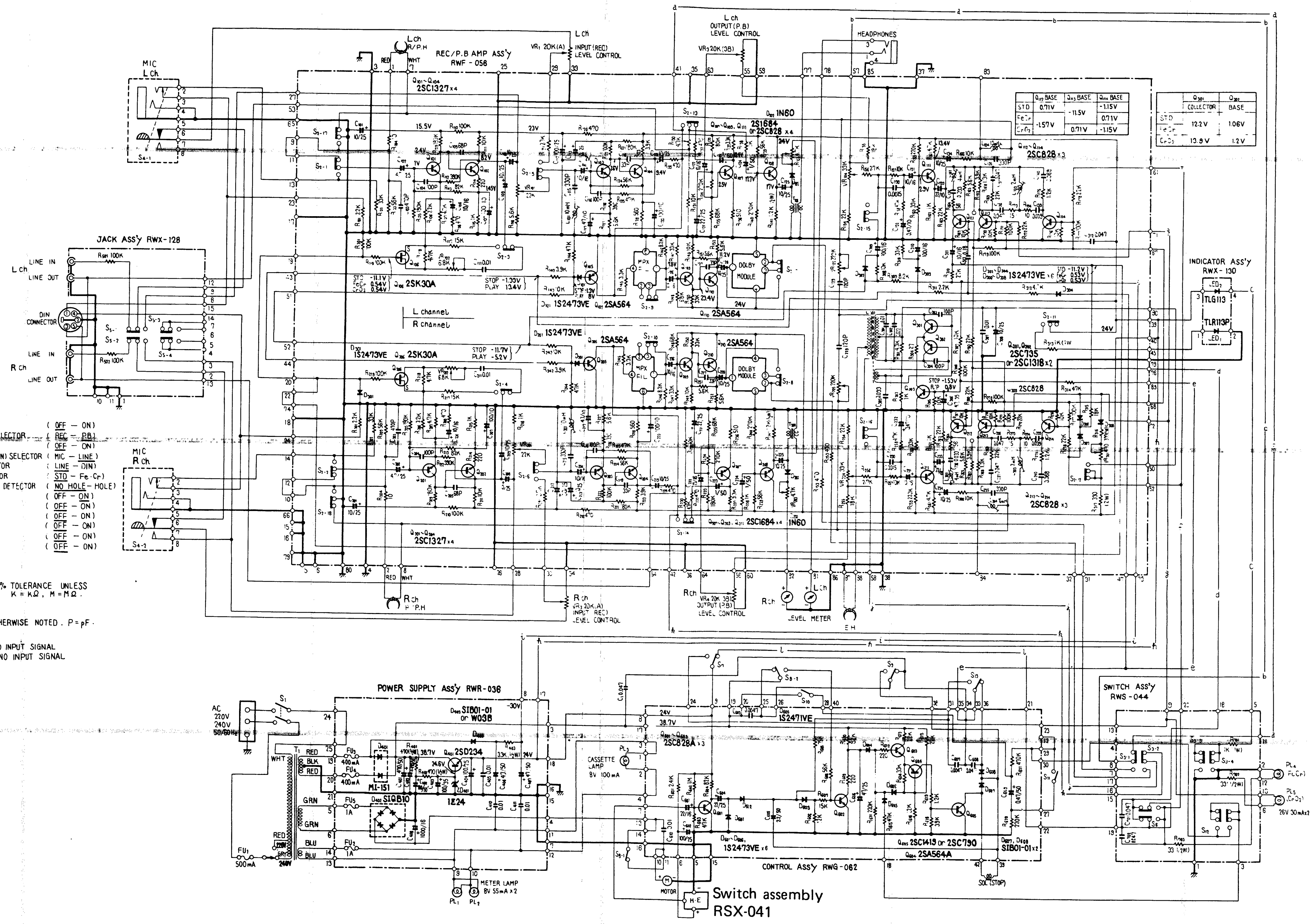

1
2
3
A
B
C
D
Screw
M4 x 24
Foot Assembly
RXA-732
Wooden case
RAH-161
AC Power cord
ADG-004
Screw
M4 x 24
Fuse (1A)
REK-051 (120V)
Fuse (0.5A)
REK-048 (220V/240V)
Line voltage selector
RKR-020

3.4 PACKING


Protector
RHC-059
Protector
RHC-061
Protector
RHC-060
Protector
RHC-060
Protector
RHC-059
Operating instructions
RRB-067
Cleaning kit
REA-014
Vinyl bag
RHL-031
Vinyl bag
RHL-019
Side pad
RHA-119
Connection cord
RED-019
Vinyl bag
RHL-018
Side pad
RHA-119
Packing case
RHG-152

4. MODEL CT-F7070/HG

4.1 SCHEMATIC DIAGRAM


MIC
L ch
S4-1
REC/P.B AMP ASS'y
RWF - 058
L ch
R/P.H
RED
WHT
Q101~Q104
2SC1327 x4
VR1 20K(A)
INPUT (REC)
LEVEL CONTROL
L ch
OUTPUT (P.B)
LEVEL CONTROL
VR3 20K(3B)
HEADPHONES
Q105~Q108, Q111
2S1684
or 2SC828 x4
D103 1N60
Q112~Q114
2SC828 x3
JACK ASS'y RWX-128
L ch
LINE IN
LINE OUT
DIN CONNECTOR
R ch
LINE IN
LINE OUT
R501 100K
R502 100K
Q201 2SK30A
STOP -1.33V
PLAY 13.4V
D101 1S2473VE
Q109 2SA564
Q110 2SA564
MPX
DOLBY MODULE
L channel
R channel
D201 1S2473VE
Q202 2SK30A
STOP -11.7V
PLAY -5.2V
D301~D304 1S2473VE x6
Q303, Q304
2SC735
or 2SC1318 x2
Q305 2SC828
Q212~Q214
2SC828 x3
Q205~Q208, Q211
2SC1684 x4
D203 1N60
Q201~Q204
2SC1327 x4
MIC
R ch
S4-2
INDICATOR ASS'y
RWX-130
LED1
TLG113
TLR113P
LED2
R ch
R/P.H
R ch
VR2 20K(A)
INPUT (REC)
LEVEL CONTROL
R ch
VR4 20K(3B)
OUTPUT (P.B)
LEVEL CONTROL
R ch
L ch
LEVEL METER
E.H
AC
220V
240V
50/60Hz
S1
T1
WHT
RED
BLK
RED
GRN
GRN
RED
220V
GRY
240V
BLU
BLU
FU1
500mA
FU3
400mA
FU4
400mA
FU5
1A
FU2
1A
POWER SUPPLY ASS'y RWR-036
D403 SIB01-01
or W03B
D401
MI-151
D402 SIQB10
R401
470(1/2W) 38.7V
Q401 2SD234
24.6V
R402 470(1/2W)
ZD401
1Z24
R403
3.3K (1/2W) 24V
-30V
METER LAMP
8V 55mA x2
PL1
PL2
CASSETTE LAMP
8V 100mA
PL3
24V
38.7V
Q601~Q603
2SC828A x3
D607
1S2471VE
Q604 2SC1413 or 2SC790
Q605 2SA564A
D601~D606
1S2473VE x6
D607, D608
SIB01-01 x2
CONTROL ASS'y RWG-062
MOTOR
H.E
SOL (STOP)
SWITCH ASS'y
RWS-044
PL4
Fe-Cr
PL5
(CrO2)
26V 30mA x2
Switch assembly
RSX-041

	Q112 BASE	Q113 BASE	Q114 BASE
STD	0.71V	-11.5V	-1.15V
FeCr	-1.57V		0.71V
CrO2		0.71V	-1.15V

	Q301	Q302
	COLLECTOR	BASE
STD	12.2V	1.06V
FeCr		
CrO2	13.9V	1.2V

SWITCHES:

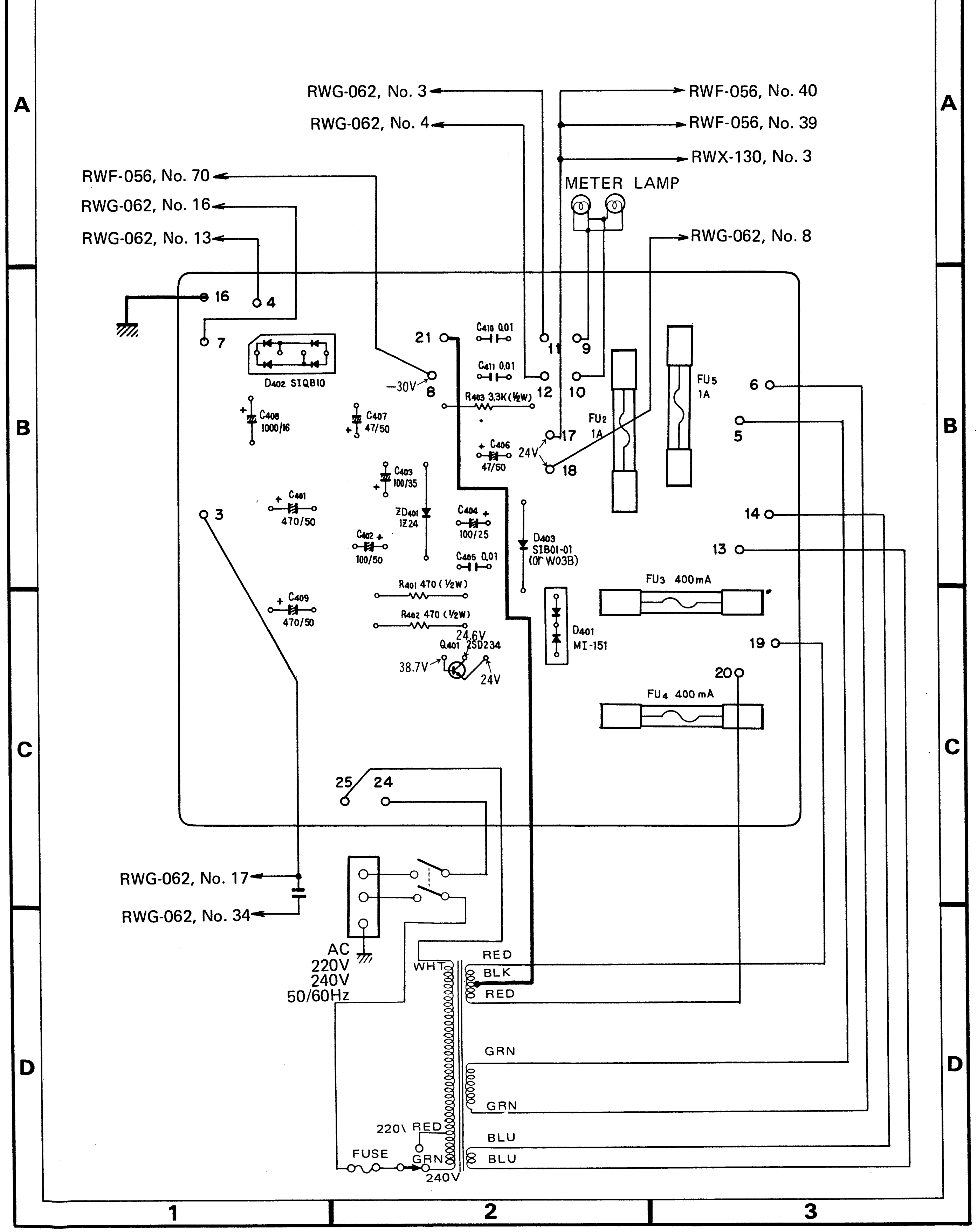
S_1	POWER	(OFF – ON)
S_2	REC/P.B SELECTOR	(REC – PB)
S_3	DOLBY NR	(OFF – ON)
S_4	MIC/LINE (DIN) SELECTOR	(MIC – LINE)
S_5	INPUT SELECTOR	(LINE – DIN)
S_6	TAPE SELECTOR	(STD – Fe·Cr)
S_7	CHROME TAPE DETECTOR	(NO HOLE – HOLE)
S_8	PLAY	(OFF – ON)
S_9	MUTING	(OFF – ON)
S_{10}	COUNTER	(OFF – ON)
S_{11}	REW	(OFF – ON)
S_{12}	MEMORY	(OFF – ON)
S_{13}	PAUSE	(OFF – ON)

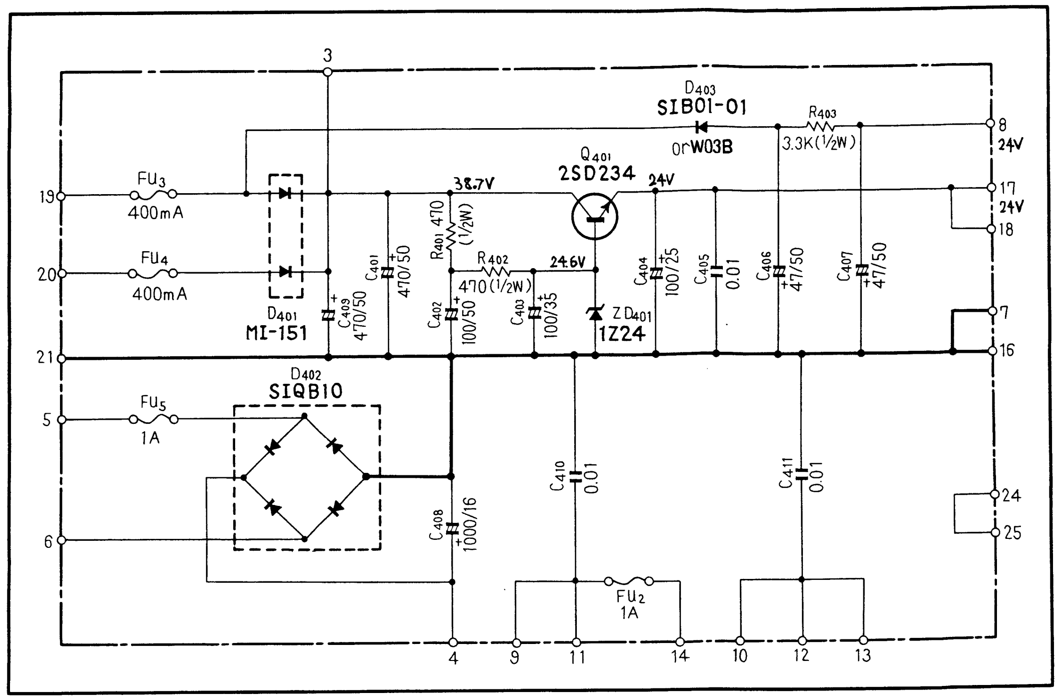
RESISTORS:
IN OHM, 1/4W, ±5% TOLERANCE UNLESS OTHERWISE NOTED K = kΩ, M = MΩ.

CAPACITORS:
IN μF UNLESS OTHERWISE NOTED. P = pF.

V : DC VOLTAGE AT NO INPUT SIGNAL
mA : DC CURRENT AT NO INPUT SIGNAL

4.2 POWER SUPPLY ASSEMBLY (RWR-036)


RWG-062, No. 3
RWG-062, No. 4
RWF-056, No. 40
RWF-056, No. 39
RWX-130, No. 3
METER LAMP
RWF-056, No. 70
RWG-062, No. 16
RWG-062, No. 13
RWG-062, No. 8
D402 SIQB10
C408 1000/16
C407 47/50
C410 0.01
C411 0.01
R403 3.3K(½W)
−30V
C406 47/50
24V
FU2 1A
FU5 1A
C403 100/35
C401 470/50
ZD401 1Z24
C404 100/25
C402 100/50
C405 0.01
D403 SIB01-01 (or W03B)
C409 470/50
R401 470 (½W)
R402 470 (½W)
24.6V
Q401 2SD234
38.7V
24V
D401 MI-151
FU3 400mA
FU4 400mA
RWG-062, No. 17
RWG-062, No. 34
AC 220V 240V 50/60Hz
WHT
RED
BLK
RED
GRN
GRN
BLU
BLU
220V RED
FUSE
GRN
240V
1
2
3
A
B
C
D


D403 SIB01-01 or W03B
R403 3.3K(½W)
Q401 2SD234
FU3 400mA
FU4 400mA
38.7V
24V
24.6V
R401 470 (½W)
R402 470(½W)
C401 470/50
C402 100/50
C403 100/35
C404 100/25
C405 0.01
C406 47/50
C407 47/50
C409 470/50
D401 MI-151
ZD401 1Z24
D402 SIQB10
FU5 1A
C408 1000/16
C410 0.01
C411 0.01
FU2 1A
24V
24V

Parts List

SEMICONDUCTORS

Symbol	Description	Part No.
Q401	Transistor	2SD234-0 (or 2SD234-Y)
ZD401	Zener diode	1Z24
D401	Diode	MI-151
D402	Diode	SIQB10
D403	Diode	SIB01-01 or (SIB01-02) (W03B) (Wo3C)

CAPACITORS

Symbol	Description			Part No.
C401	Electrolytic	470	50V	CEA 471P 50
C402	Electrolytic	100	50V	CEA 101P 50
C403	Electrolytic	100	35V	CEA 101P 35
C404	Electrolytic	100	25V	CEA 101P 25
C405	Ceramic	0.01	50V	CKDYF 103Z 50
C406	Electrolytic	47	50V	CEA 470P 50
C407	Electrolytic	47	50V	CEA 470P 50
C408	Electrolytic	1000	16V	CEA 102P 16
C409	Electrolytic	470	50V	CEA 471P 50
C410	Ceramic	0.01	50V	CKDYF 103Z 50
C411	Ceramic	0.01	50V	CKDYF 103Z 50

RESISTORS

Symbol	Description			Part No.
R401	Carbon film	470	½W	RD½PSF 471J
R402	Carbon film	470	½W	RD½PSF 471J
R403	Carbon film	3.3k	½W	RD½PS 332J

OTHERS

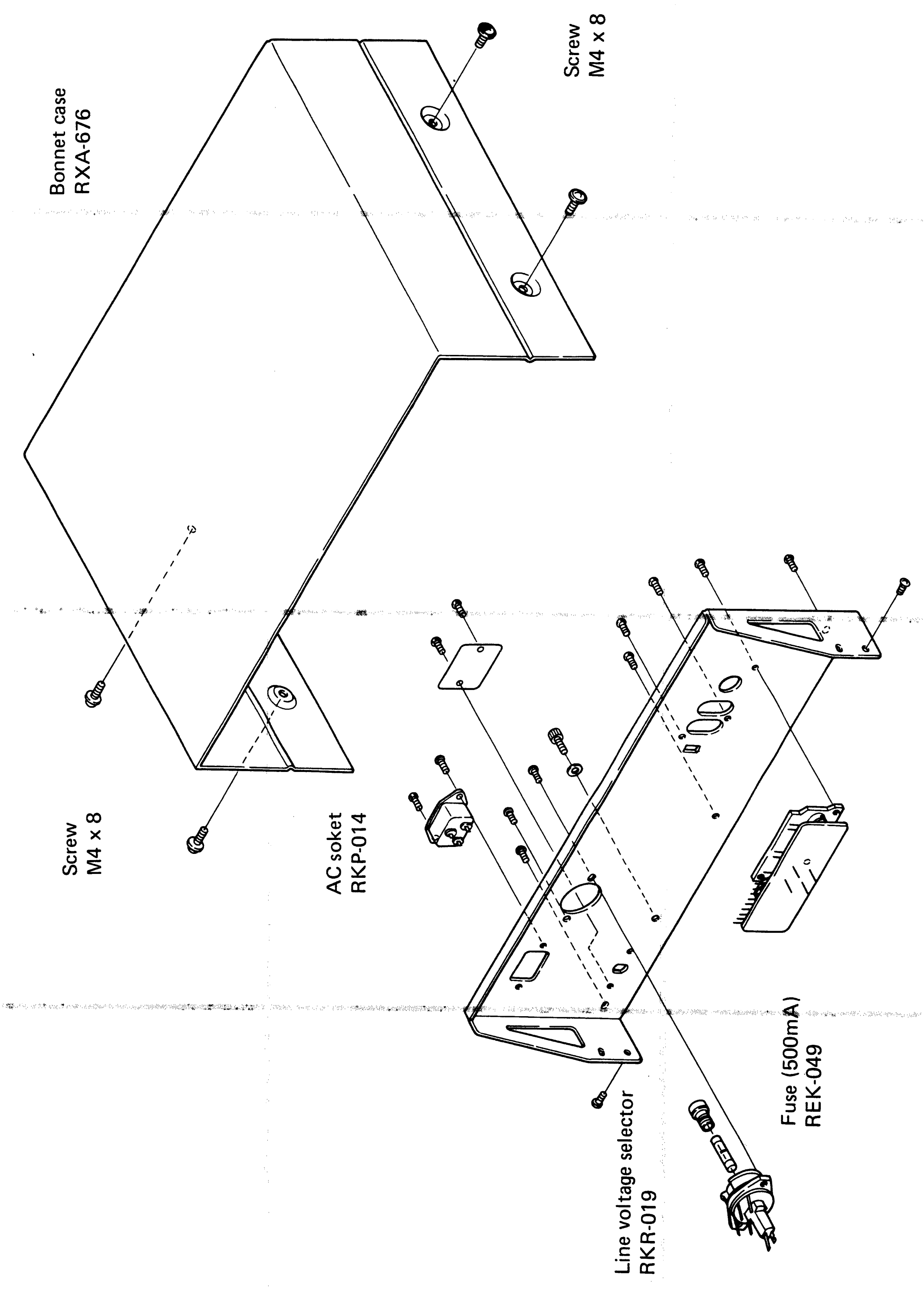
Symbol	Description	Part No.
	Heat sink assembly	RNF-008

OTHERS

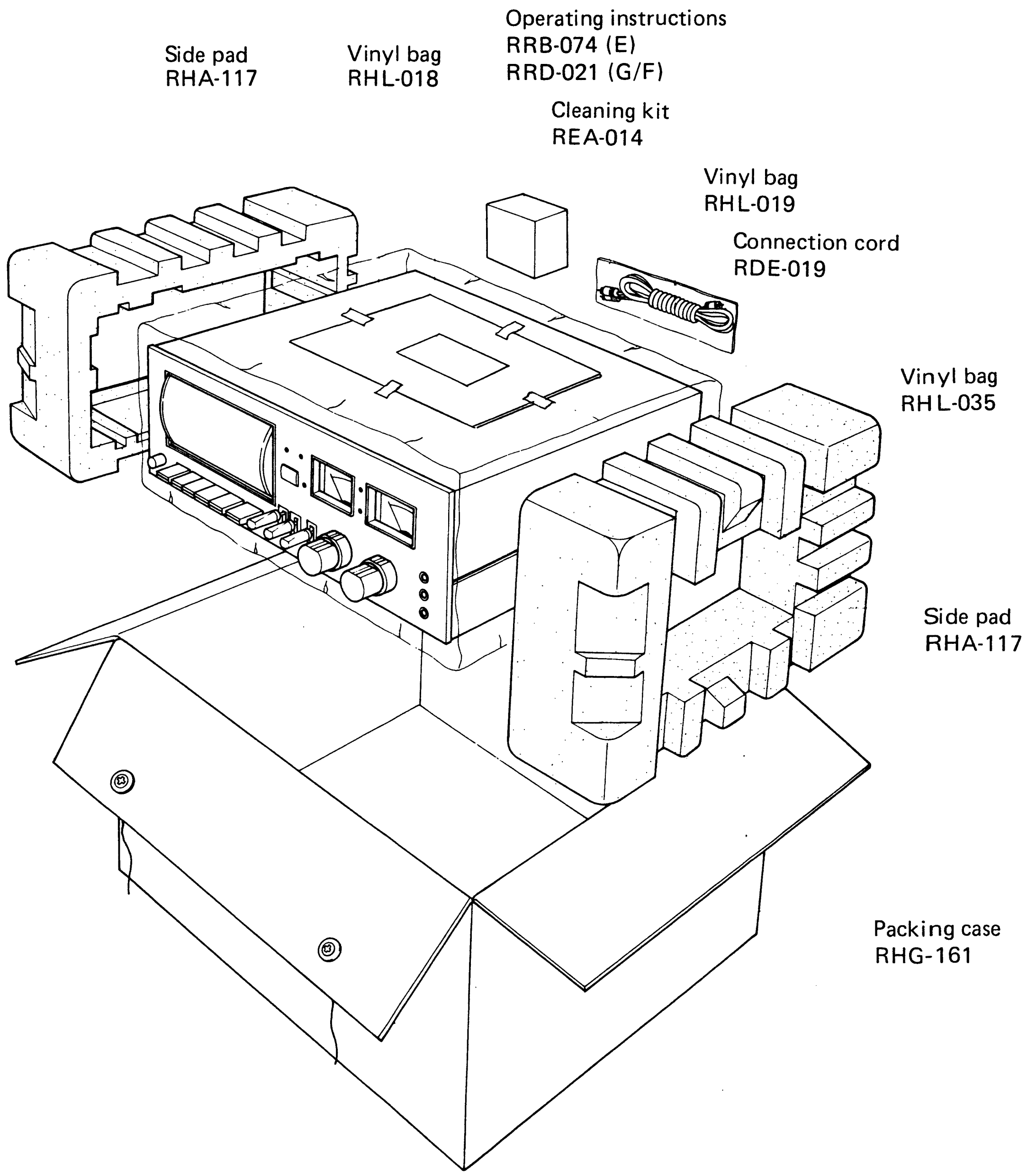
Symbol	Description	Part No.
FU2	Fuse 1A	REK-056
FU3	Fuse 400mA	REK-053
FU4	Fuse 400mA	REK-053
FU5	Fuse 1A	REK-056
	Fuse holder	RKR-013

4.3 REAR PANEL

NOTE:
Parts indicated in green type cannot be supplied.

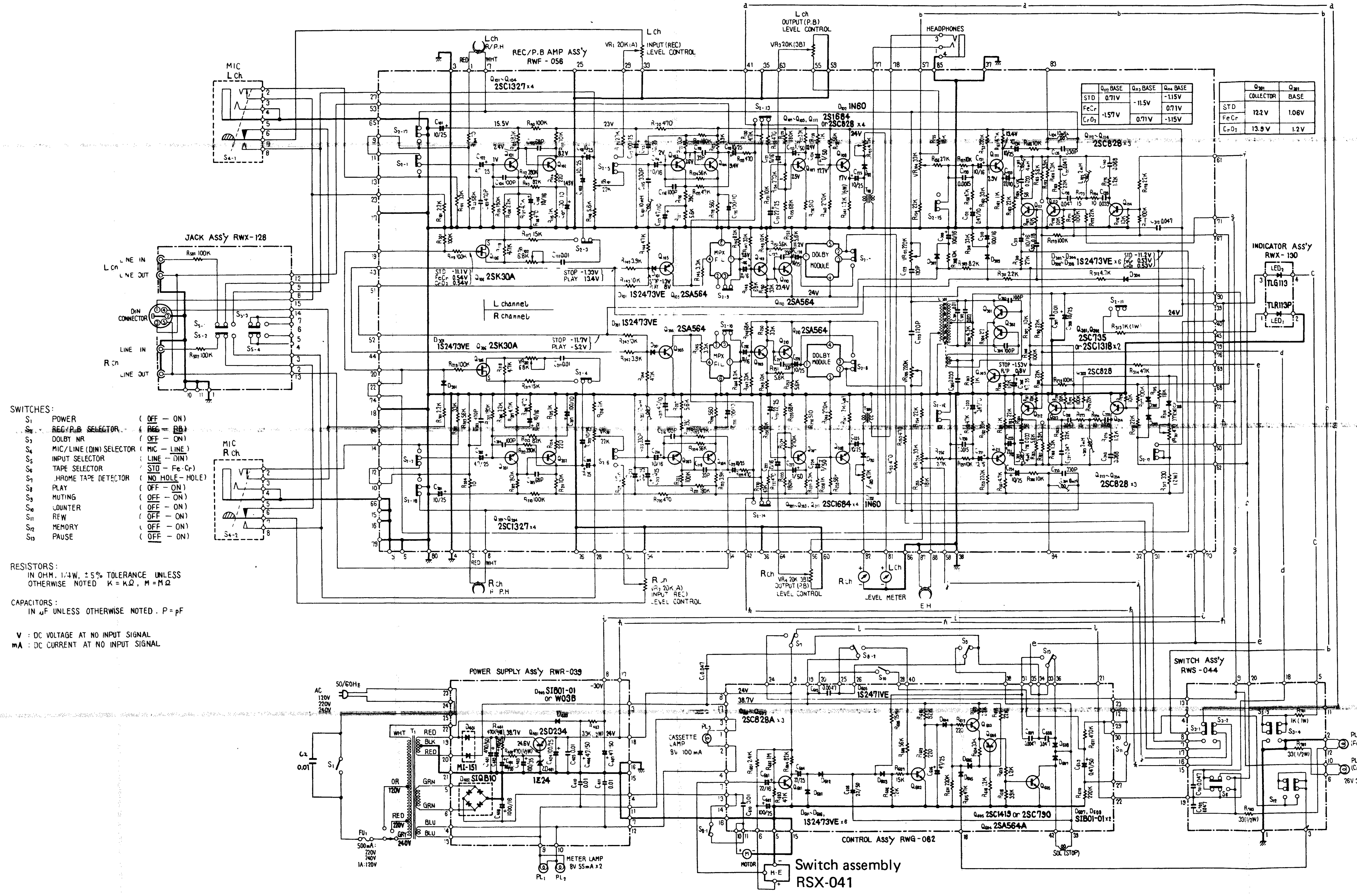

Bonnet case
RXA-676
Screw
M4 x 8
Screw
M4 x 8
AC soket
RKP-014
Fuse (500mA)
REK-049
Line voltage selector
RKR-019

4.4 PACKING


Side pad
RHA-117
Vinyl bag
RHL-018
Operating instructions
RRB-074 (E)
RRD-021 (G/F)
Cleaning kit
REA-014
Vinyl bag
RHL-019
Connection cord
RDE-019
Vinyl bag
RHL-035
Side pad
RHA-117
Packing case
RHG-161

5. MODEL CT-F7070/D

5.1 SCHEMATIC DIAGRAM



1
2
3
4
5
6
A
B
C
D
MIC L ch
MIC R ch
JACK ASS'Y RWX-128
LINE IN
LINE OUT
DIN CONNECTOR
REC/P.B AMP ASS'Y RWF-056
L ch R/P.H
R ch R/P.H
VR₁ 20K(A) INPUT (REC) LEVEL CONTROL
L ch OUTPUT (P.B) LEVEL CONTROL
VR₃ 20K(3B)
HEADPHONES
Q101~Q104 2SC1327×4
Q107~Q110, Q111 2S1684 or 2SC828 ×4
Q112~Q114 2SC828×3
D101 1N60
Q105 2SK30A
Q106 2SK30A
Q301, Q302 2SC735 or 2SC1318 ×2
DOLBY MODULE
L channel
R channel
STD -11.1V FeCr 0.54V CrO₂ 0.54V
STOP -1.33V PLAY 13.4V
STOP -11.7V PLAY -52V
D₃₀₁~D₃₀₆ 1S2473VE ×6
INDICATOR ASS'Y RWX-130
TLG113
TLR113P
LED₁
LED₂
LEVEL METER
R ch
L ch
E H
VR₄ 20K 3B OUTPUT (P.B) LEVEL CONTROL
VR₂ 20K(A) INPUT (REC) LEVEL CONTROL
POWER SUPPLY ASS'Y RWR-039
AC 50/60Hz
120V 220V 240V
D₂₀₁ S1B01-01 or W03B
Q₂₀₁ 2SD234
M1-151
S1B10
1E24
FU₁ 500mA: 220V 240V 1A: 120V
METER LAMP 8V 55mA ×2
PL₁
PL₂
CASSETTE LAMP 5V 100mA
CONTROL ASS'Y RWG-082
2SC828A ×3
1S2471VE
1S2473VE ×6
2SC1413 or 2SC730
S1B01-01×2
2SA564A
SOL (STOP)
MOTOR
Switch assembly RSX-041
SWITCH ASS'Y RWS-044
PL₄ (FeCr)
PL₅ (CrO₂)
26V 30mA×2

	Q_{112} BASE	Q_{113} BASE	Q_{114} BASE
STD	0.71V	-11.5V	-1.15V
FeCr	-1.57V		0.71V
CrO_2		0.71V	-1.15V

	Q_{301}	Q_{302}
	COLLECTOR	BASE
STD	12.2V	1.06V
FeCr		
CrO_2	13.9V	1.2V

SWITCHES:

S_1	POWER	(OFF — ON)
~~S_2~~	~~REC/P.B SELECTOR~~	~~(REC — PB)~~
S_3	DOLBY NR	(OFF — ON)
S_4	MIC/LINE (DIN) SELECTOR	(MIC — LINE)
S_5	INPUT SELECTOR	(LINE — DIN)
S_6	TAPE SELECTOR	(STD — Fe·Cr)
S_7	CHROME TAPE DETECTOR	(NO HOLE — HOLE)
S_8	PLAY	(OFF — ON)
S_9	MUTING	(OFF — ON)
S_{10}	COUNTER	(OFF — ON)
S_{11}	REW	(OFF — ON)
S_{12}	MEMORY	(OFF — ON)
S_{13}	PAUSE	(OFF — ON)

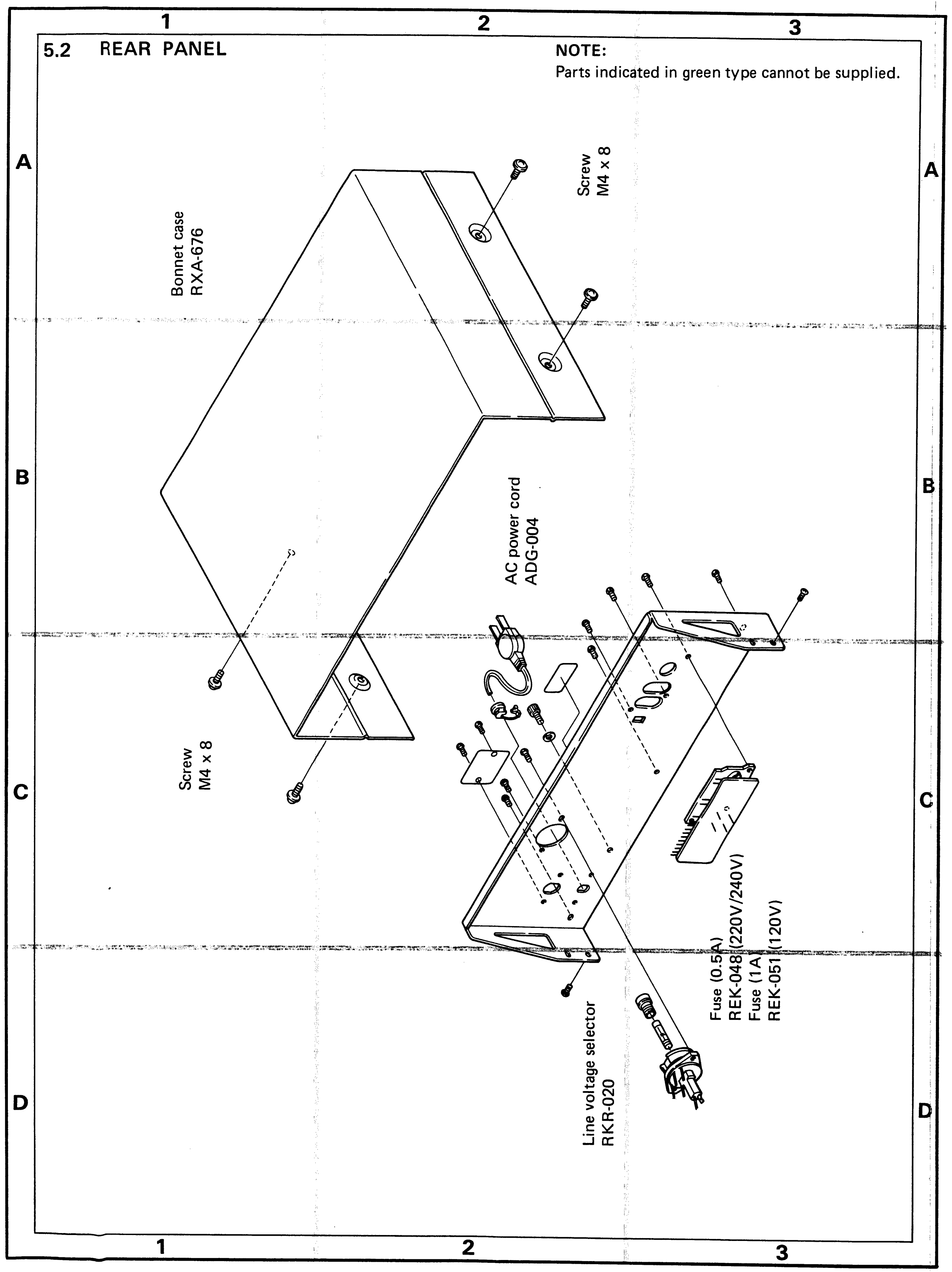
RESISTORS:
IN OHM, 1/4W, ±5% TOLERANCE UNLESS OTHERWISE NOTED K = kΩ, M = MΩ

CAPACITORS:
IN μF UNLESS OTHERWISE NOTED. P = pF

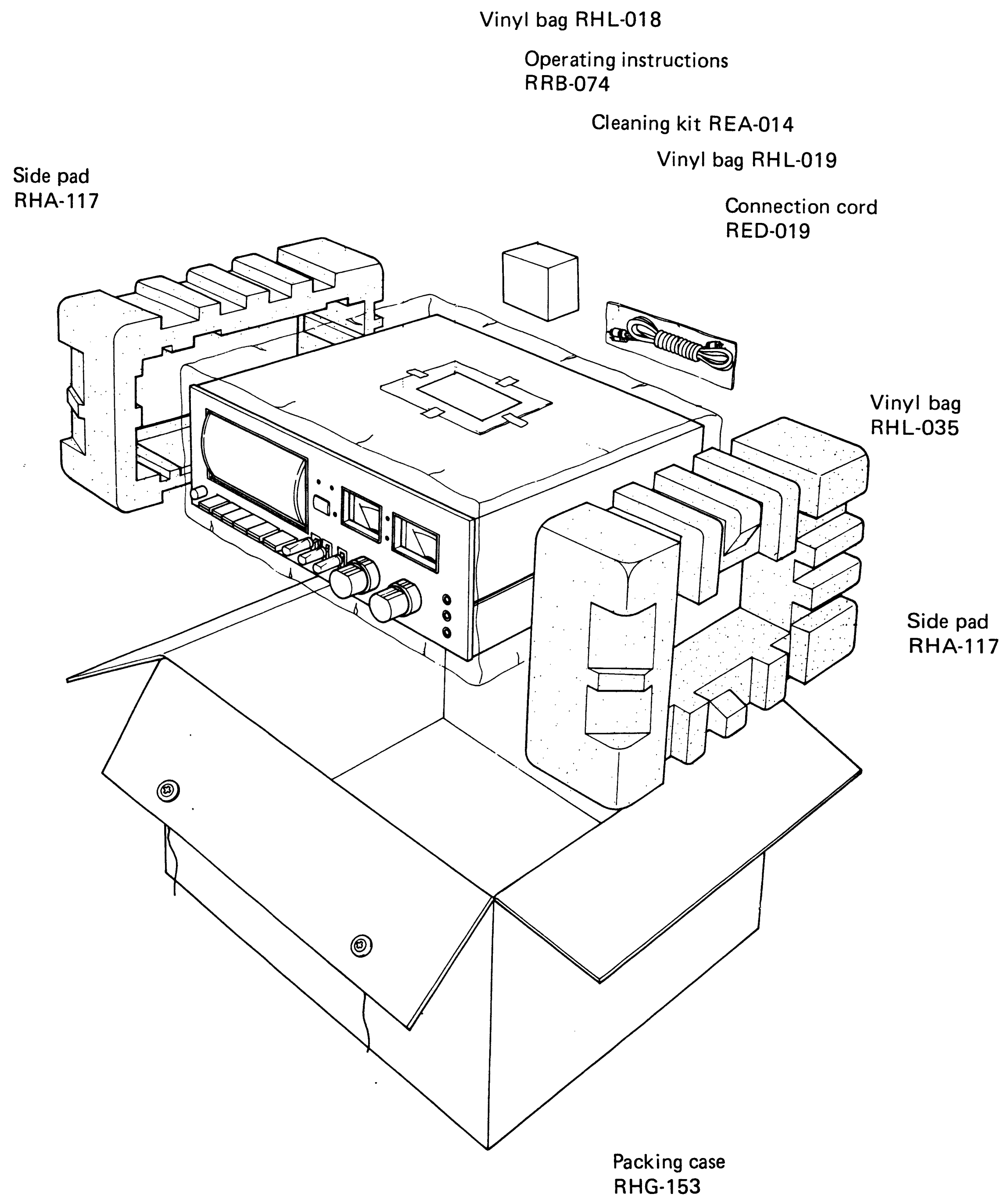
V : DC VOLTAGE AT NO INPUT SIGNAL
mA : DC CURRENT AT NO INPUT SIGNAL

5.2 REAR PANEL

NOTE:
Parts indicated in green type cannot be supplied.

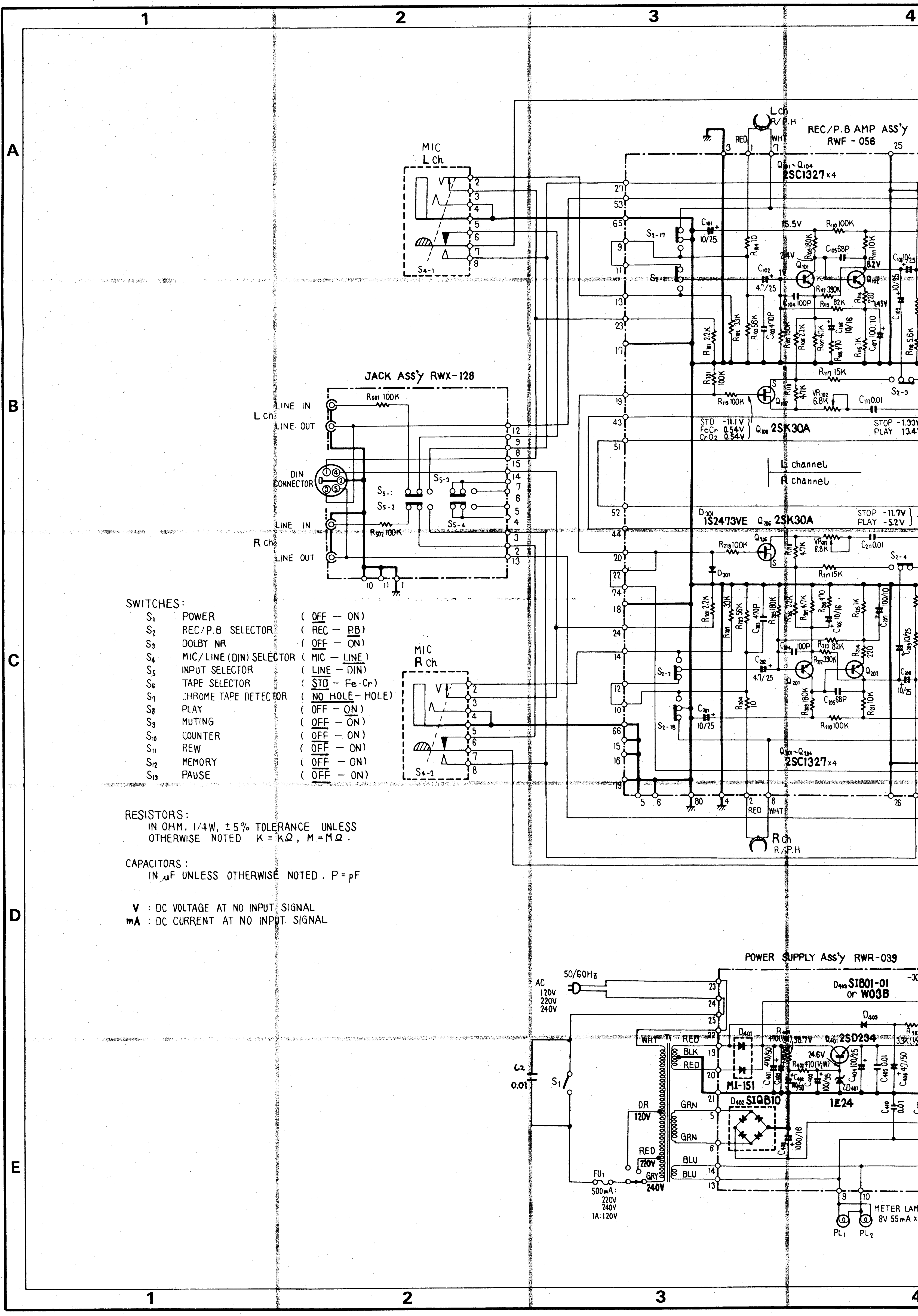

1
2
3
A
B
C
D
Screw
M4 x 8
Bonnet case
RXA-676
AC power cord
ADG-004
Screw
M4 x 8
Fuse (0.5A)
REK-048 (220V/240V)
Fuse (1A)
REK-051 (120V)
Line voltage selector
RKR-020

5.3 PACKING


Vinyl bag RHL-018
Operating instructions
RRB-074
Cleaning kit REA-014
Vinyl bag RHL-019
Side pad
RHA-117
Connection cord
RED-019
Vinyl bag
RHL-035
Side pad
RHA-117
Packing case
RHG-153

CASSETTE TAPE DECK

CT-F7070 D


1
2
3
4
A
B
C
D
E
MIC L ch
S4-1
JACK ASS'Y RWX-128
L ch LINE IN
LINE OUT
R501 100K
DIN CONNECTOR
S5-1
S5-2
S5-3
S5-4
R ch LINE IN
LINE OUT
R502 100K
MIC R ch
S4-2
L ch R/P.H
REC/P.B AMP ASS'Y RWF-056
Q101~Q104 2SC1327×4
Q201~Q204 2SC1327×4
S2-17
S2-18
Q106 2SK30A
Q206 2SK30A
D301 1S2473VE
STD -11.1V FeCr 0.54V CrO2 0.54V
STOP -1.33V PLAY 13.4V
STOP -11.7V PLAY -5.2V
L channel
R channel
R ch R/P.H
POWER SUPPLY ASS'Y RWR-039
AC 120V 220V 240V
50/60Hz
C2 0.01
S1
FU1 500mA: 220V 240V 1A:120V
D403 S1B01-01 or W03B
Q401 2SD234
D401 MI-151
D402 S1QB10
1Z24
METER LAMP 8V 55mA
PL1
PL2

SWITCHES:

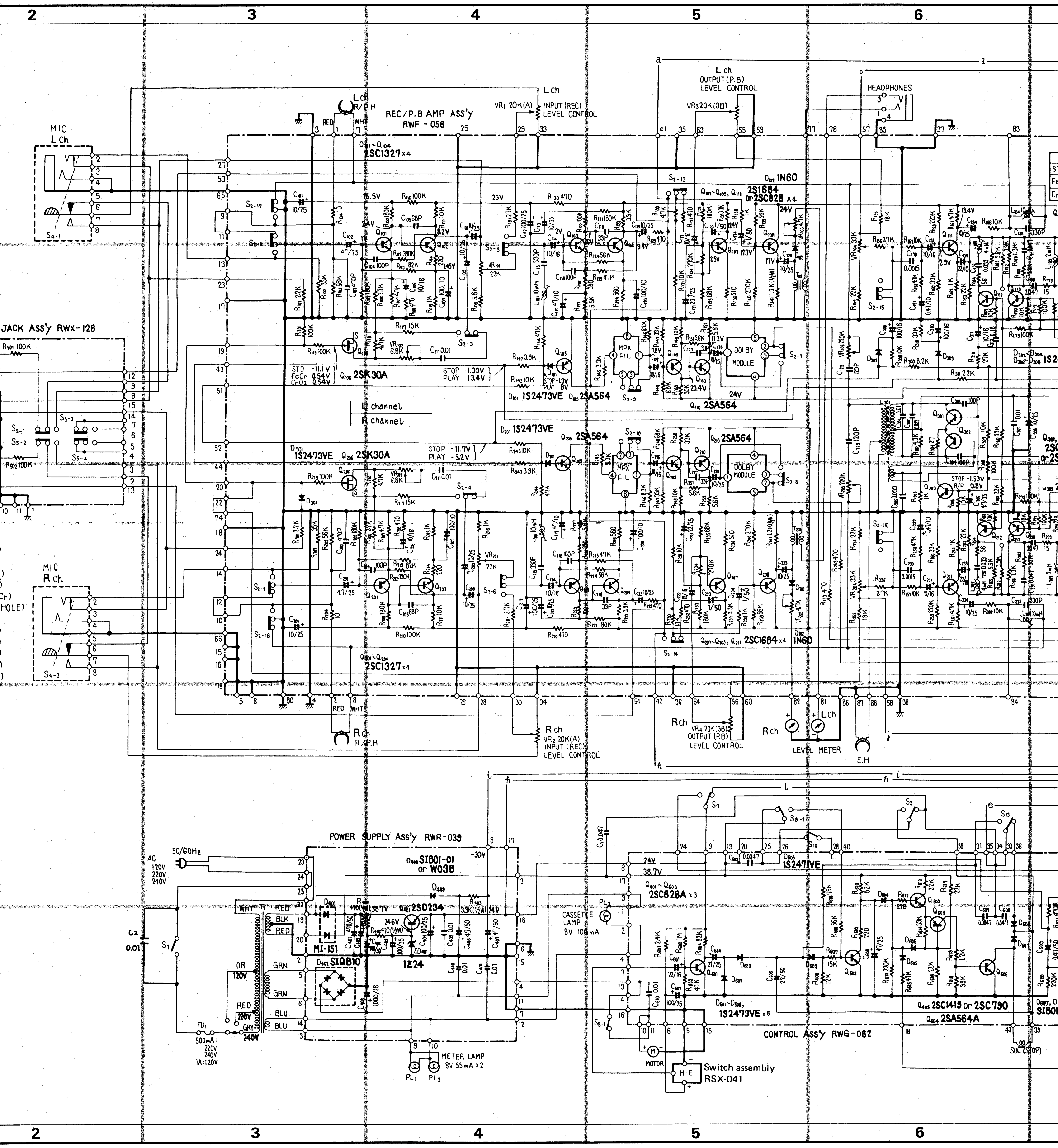
S_1	POWER	(OFF — ON)
S_2	REC/P.B SELECTOR	(REC — P.B)
S_3	DOLBY NR	(OFF — ON)
S_4	MIC/LINE (DIN) SELECTOR	(MIC — LINE)
S_5	INPUT SELECTOR	(LINE — DIN)
S_6	TAPE SELECTOR	(STD — Fe·Cr)
S_7	CHROME TAPE DETECTOR	(NO HOLE — HOLE)
S_8	PLAY	(OFF — ON)
S_9	MUTING	(OFF — ON)
S_{10}	COUNTER	(OFF — ON)
S_{11}	REW	(OFF — ON)
S_{12}	MEMORY	(OFF — ON)
S_{13}	PAUSE	(OFF — ON)

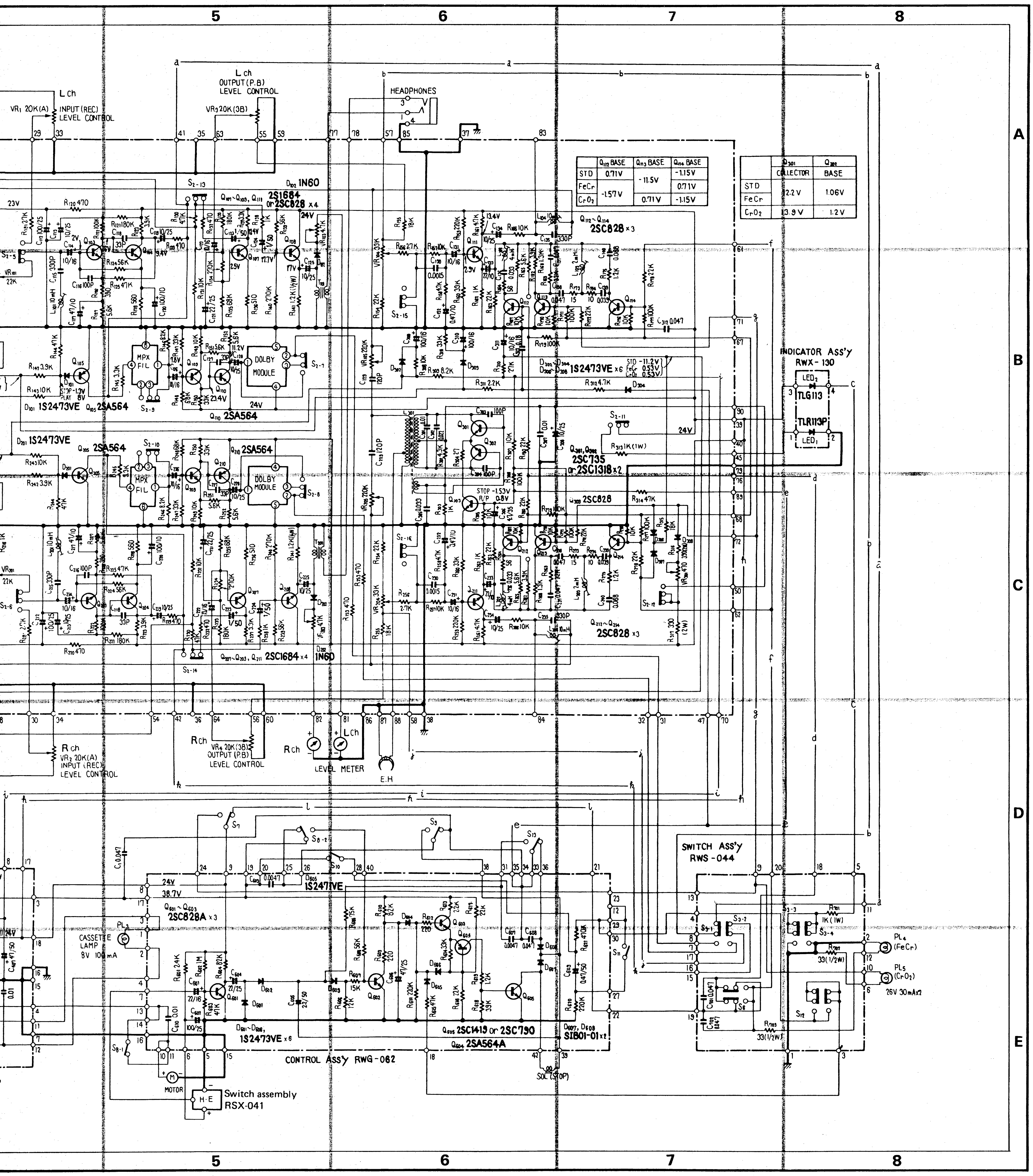
RESISTORS:
IN OHM, 1/4W, ±5% TOLERANCE UNLESS OTHERWISE NOTED K = kΩ, M = MΩ.

CAPACITORS:
IN μF UNLESS OTHERWISE NOTED. P = pF

V : DC VOLTAGE AT NO INPUT SIGNAL
mA : DC CURRENT AT NO INPUT SIGNAL

070 D


2
3
4
5
6
MIC Lch
S4-1
JACK ASS'Y RWX-128
MIC Rch
S4-2
Lch R/P.H
REC/P.B AMP ASS'Y RWF-056
Q101~Q104 2SC1327 x4
VR1 20K(A) Lch INPUT (REC) LEVEL CONTROL
Lch OUTPUT(P.B) LEVEL CONTROL
VR3 20K(3B)
D102 1N60
Q107~Q109, Q111 2S1684 or 2SC828 x4
HEADPHONES
STD -11.1V
FeCr 0.54V
CrO2 0.54V
Q106 2SK30A
STOP -1.33V
PLAY 13.4V
D101 1S2473VE
Q105 2SA564
MPX FIL
DOLBY MODULE
Q110 2SA564
L channel
R channel
D201 1S2473VE
Q205 2SA564
Q210 2SA564
D301 1S2473VE
Q206 2SK30A
STOP -11.7V
PLAY -5.2V
STOP -1.53V
R/P 0.8V
Q201~Q204 2SC1327 x4
Q207~Q209, Q211 2SC1684 x4
D202 1N60
Rch R/P.H
Rch VR2 20K(A) INPUT (REC) LEVEL CONTROL
Rch VR4 20K(3B) OUTPUT (P.B) LEVEL CONTROL
Rch
Lch
LEVEL METER
E.H
POWER SUPPLY ASS'Y RWR-039
AC 120V 220V 240V
50/60Hz
C2 0.01
S1
D403 SIB01-01 or W03B
Q401 2SD234
MI-151
D402 SIQB10
ZD401 1E24
FU1 500mA: 220V 240V 1A:120V
METER LAMP 8V 55mA x2
PL1
PL2
CASSETTE LAMP 8V 100mA
PL3
Q601~Q603 2SC828A x3
D605 1S2471VE
D601~D606, 1S2473VE x6
Q605 2SC1413 or 2SC790
Q604 2SA564A
CONTROL ASS'Y RWG-062
MOTOR
Switch assembly RSX-041
H.E
SOL (STOP)
S7
S8-2
S9
S10
S13
S8-1

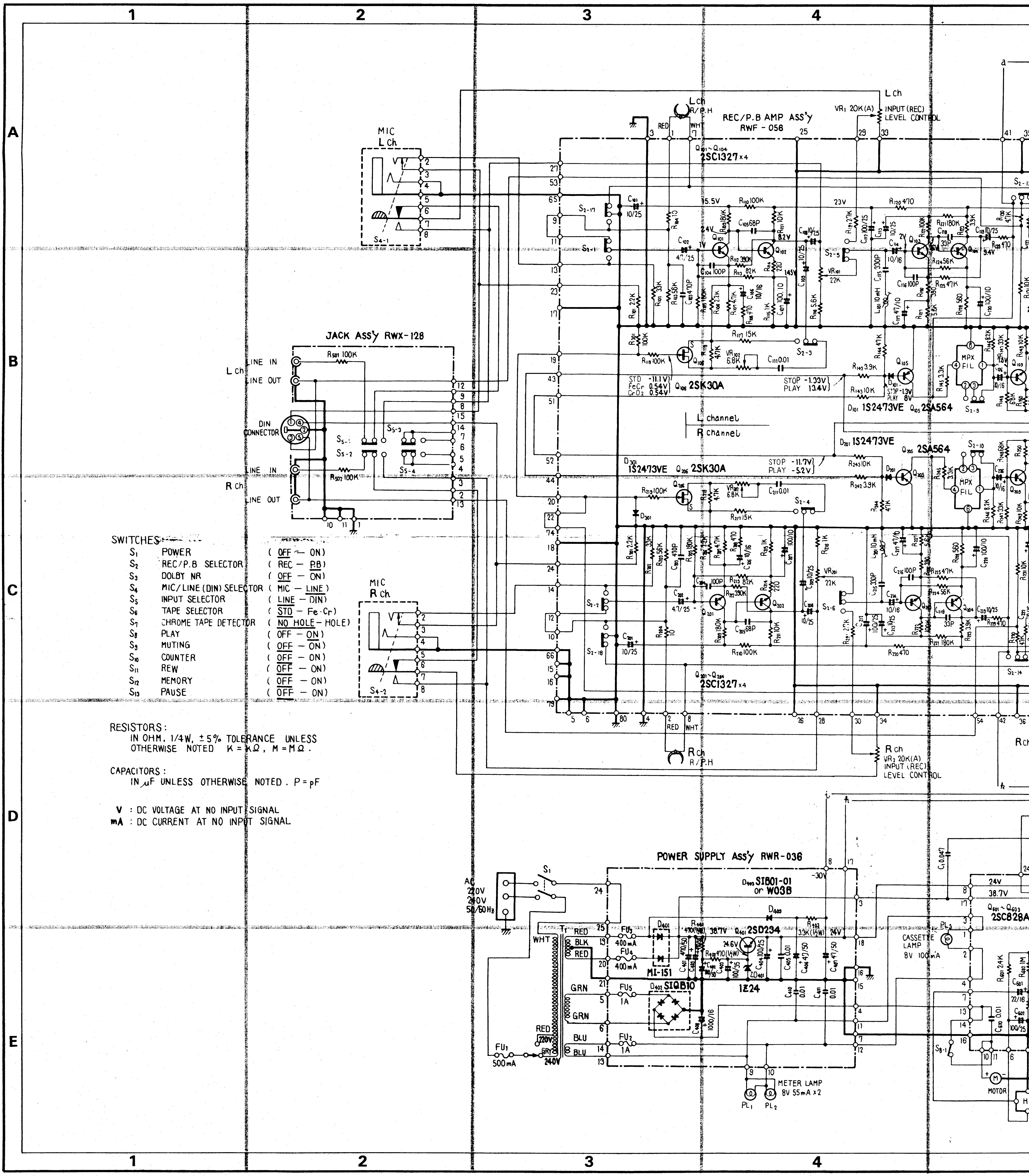

5
6
7
8
A
B
C
D
E
L ch
INPUT (REC) LEVEL CONTROL
VR₁ 20K(A)
L ch
OUTPUT (P.B) LEVEL CONTROL
VR₃ 20K(3B)
HEADPHONES
D₁₀₂ 1N60
Q₁₀₁~Q₁₀₃, Q₁₁₁ 2S1684 or 2SC828 x4
Q₁₁₂~Q₁₁₄ 2SC828 x3
MPX FIL
DOLBY MODULE
D₁₀₁ 1S2473VE
Q₁₀₄ 2SA564
Q₁₁₀ 2SA564
D₂₀₁ 1S2473VE
Q₂₀₅ 2SA564
Q₂₁₀ 2SA564
D₃₀₁~D₃₀₄, D₃₀₆~D₃₀₈ 1S2473VE x6
INDICATOR ASS'Y RWX-130
LED₂ TLG113
TLR113P LED₁
Q₃₀₁, Q₃₀₂ 2SC735 or 2SC1318 x2
Q₃₀₃ 2SC828
STOP -1.53V R/P 0.8V
Q₂₁₂~Q₂₁₄ 2SC828 x3
Q₂₀₇~Q₂₀₃, Q₂₁₁ 2SC1684 x4
D₂₀₂ 1N60
R ch
VR₂ 20K(A)
INPUT (REC) LEVEL CONTROL
R ch
VR₄ 20K(3B)
OUTPUT (P.B) LEVEL CONTROL
R ch
L ch
LEVEL METER
E.H
SWITCH ASS'Y RWS-044
PL₄ (FeCr)
PL₅ (CrO₂)
26V 30mA x2
D₆₀₅ 1S2471VE
Q₆₀₁~Q₆₀₃ 2SC828A x3
CASSETTE LAMP 8V 100mA
PL₃
D₆₀₁~D₆₀₆, 1S2473VE x6
Q₆₀₅ 2SC1413 or 2SC790
Q₆₀₄ 2SA564A
D₆₀₇, D₆₀₈ SIB01-01 x2
CONTROL ASS'Y RWG-062
SOL (STOP)
MOTOR
Switch assembly RSX-041
H·E
24V
38.7V

	Q₁₁₂ BASE	Q₁₁₃ BASE	Q₁₁₄ BASE
STD	0.71V	- 11.5V	-1.15V
FeCr	-1.57V		0.71V
CrO₂		0.71V	-1.15V

	Q₃₀₁	Q₃₀₂
	COLLECTOR	BASE
STD	12.2 V	1.06V
FeCr		
CrO₂	13.9 V	1.2 V

CASSETTE TAPE DECK

CT-F7070 HG


1
2
3
4
A
B
C
D
E
MIC
L ch
S4-1
JACK ASS'Y RWX-128
L ch
LINE IN
LINE OUT
R501 100K
DIN CONNECTOR
S5-1
S5-2
S5-3
S5-4
R ch
LINE IN
LINE OUT
R502 100K
MIC
R ch
S4-2
L ch
R/P.H
RED
WHT
REC/P.B AMP ASS'Y
RWF-056
Q101~Q104
2SC1327×4
VR1 20K(A)
INPUT (REC) LEVEL CONTROL
STD -11.1V
FeCr 0.54V
CrO2 0.54V
Q106 2SK30A
STOP -1.33V
PLAY 13.4V
D101 1S2473VE
Q105 2SA564
MPX FIL
L channel
R channel
D201 1S2473VE
Q205 2SA564
D301 1S2473VE
Q206 2SK30A
STOP -11.7V
PLAY -5.2V
Q201~Q204
2SC1327×4
R ch
R/P.H
R ch
VR2 20K(A)
INPUT (REC) LEVEL CONTROL
POWER SUPPLY ASS'Y RWR-036
AC 220V 240V 50/60Hz
S1
D402 S1B01-01 or W03B
D403
Q401 2SD234
D401 S1QB10
MI-151
1Z24
FU1 500mA
FU3 400mA
FU4 400mA
FU5 1A
FU2 1A
METER LAMP 8V 55mA ×2
PL1
PL2
CASSETTE LAMP 8V 100mA
PL3
Q601~Q603
2SC828A
MOTOR
24V
38.7V
-30V

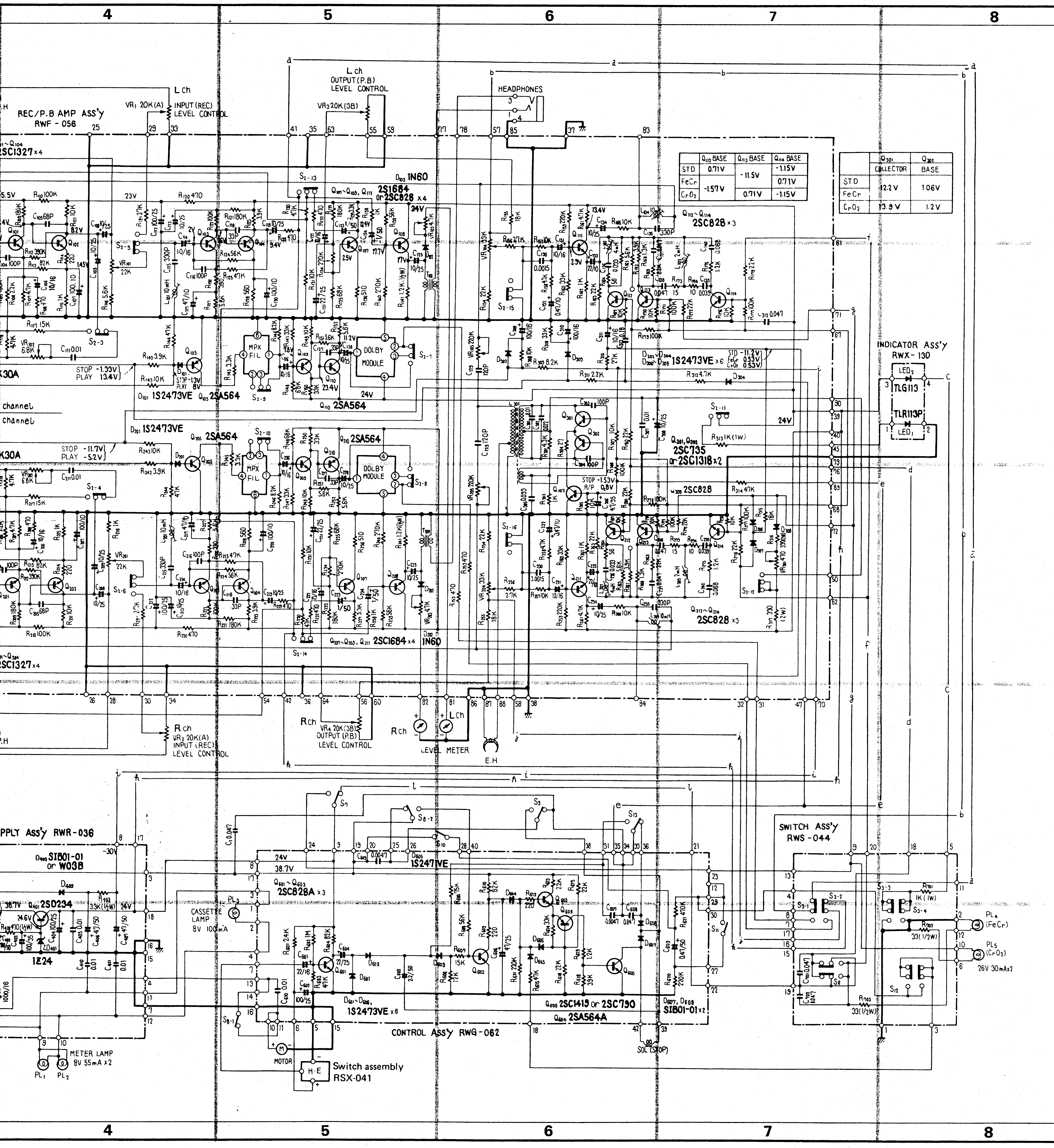
SWITCHES

S_1	POWER	(OFF — ON)
S_2	REC/P.B SELECTOR	(REC — P.B)
S_3	DOLBY NR	(OFF — ON)
S_4	MIC/LINE (DIN) SELECTOR	(MIC — LINE)
S_5	INPUT SELECTOR	(LINE — DIN)
S_6	TAPE SELECTOR	(STD — Fe·Cr)
S_7	CHROME TAPE DETECTOR	(NO HOLE — HOLE)
S_8	PLAY	(OFF — ON)
S_9	MUTING	(OFF — ON)
S_{10}	COUNTER	(OFF — ON)
S_{11}	REW	(OFF — ON)
S_{12}	MEMORY	(OFF — ON)
S_{13}	PAUSE	(OFF — ON)

RESISTORS:
IN OHM, 1/4W, ±5% TOLERANCE UNLESS OTHERWISE NOTED K = kΩ, M = MΩ.

CAPACITORS:
IN μF UNLESS OTHERWISE NOTED. P = pF

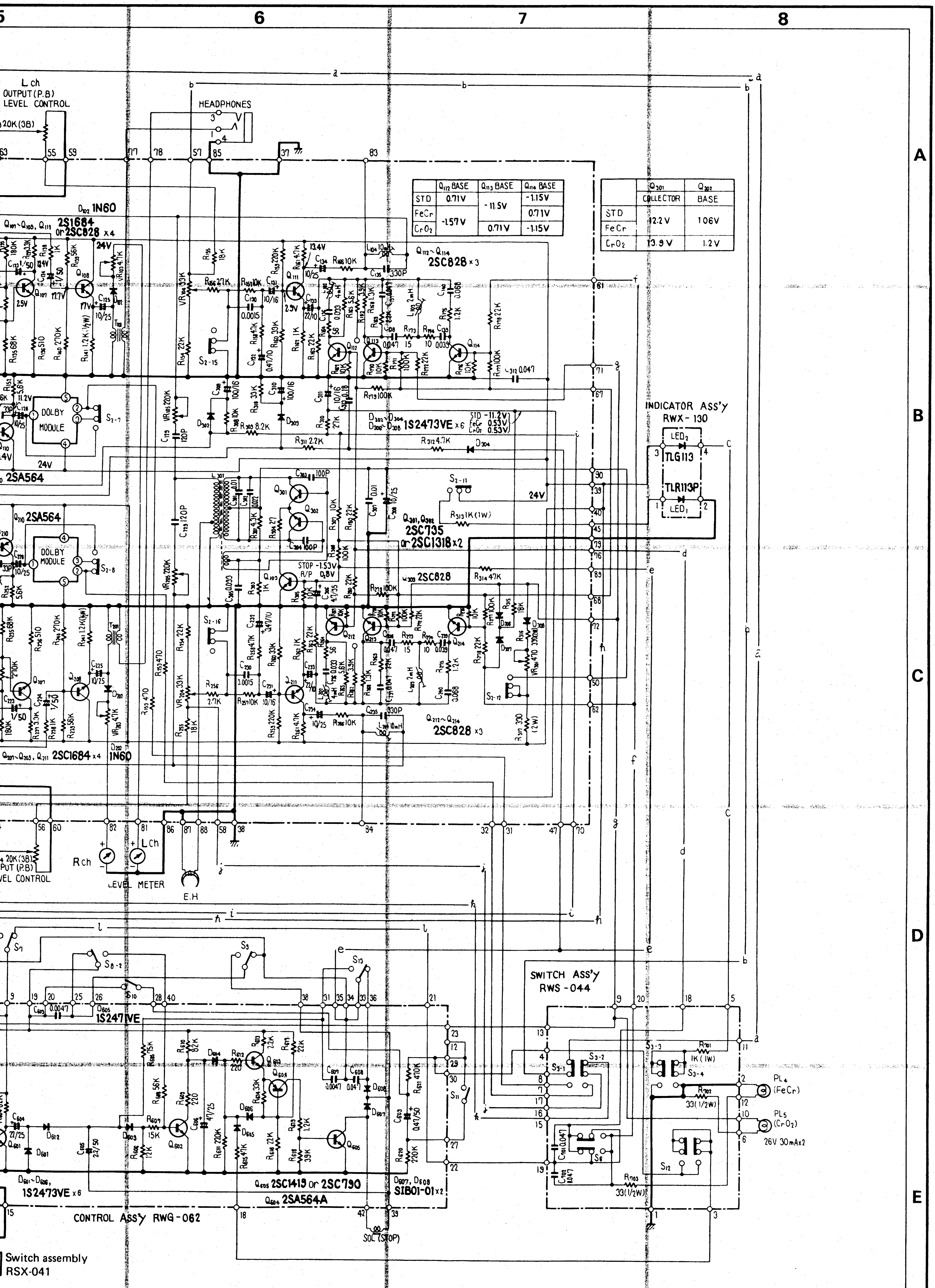
V : DC VOLTAGE AT NO INPUT SIGNAL
mA : DC CURRENT AT NO INPUT SIGNAL


4
5
6
7
8
REC/P.B AMP ASS'y RWF-056
2SC1327×4
L ch
VR1 20K(A) INPUT (REC) LEVEL CONTROL
L ch OUTPUT (P.B) LEVEL CONTROL
VR3 20K(3B)
HEADPHONES
D102 1N60
Q101~Q103, Q111 2S1684 or 2SC828 ×4
Q112~Q114 2SC828×3
MPX FIL
DOLBY MODULE
STOP -1.33V PLAY 13.4V
D101 1S2473VE
Q105 2SA564
Q110 2SA564
D301~D304, D306~D308 1S2473VE×6
STD -11.2V FeCr 0.53V CrO2 0.53V
INDICATOR ASS'y RWX-130
LED2
TLG113
TLR113P
LED1
Q301, Q302 2SC735 or 2SC1318×2
Q303 2SC828
STOP -1.53V R/P 0.8V
channel
channel
D201 1S2473VE
Q205 2SA564
Q210 2SA564
STOP -11.7V PLAY -5.2V
Q201~Q203, Q211 2SC1684×4
D202 1N60
Q212~Q214 2SC828×3
2SC1327×4
R ch
VR2 20K(A) INPUT (REC) LEVEL CONTROL
R ch
VR4 20K(3B) OUTPUT (P.B) LEVEL CONTROL
LEVEL METER
E.H
PPLY ASS'y RWR-036
D401 SIB01-01 or W03B
D403
Q401 2SD234
ZD401
1E24
CASSETTE LAMP 8V 100mA
PL3
Q601~Q603 2SC828A×3
D605 1S2471VE
D601~D606, 1S2473VE×6
Q605 2SC1419 or 2SC790
Q604 2SA564A
D607, D608 SIB01-01×2
CONTROL ASS'y RWG-062
SOL (STOP)
MOTOR
Switch assembly RSX-041
H·E
METER LAMP 8V 55mA×2
PL1 PL2
SWITCH ASS'y RWS-044
PL4 (FeCr)
PL5 (CrO2)
26V 30mA×2
S7
S8-2
S9
S10
S11
S12

	Q112 BASE	Q113 BASE	Q114 BASE
STD	0.71V	-11.5V	-1.15V
FeCr	-1.57V		0.71V
CrO2		0.71V	-1.15V

	Q301	Q302
	COLLECTOR	BASE
STD	12.2V	106V
FeCr		
CrO2	13.9V	1.2V

PIONEER



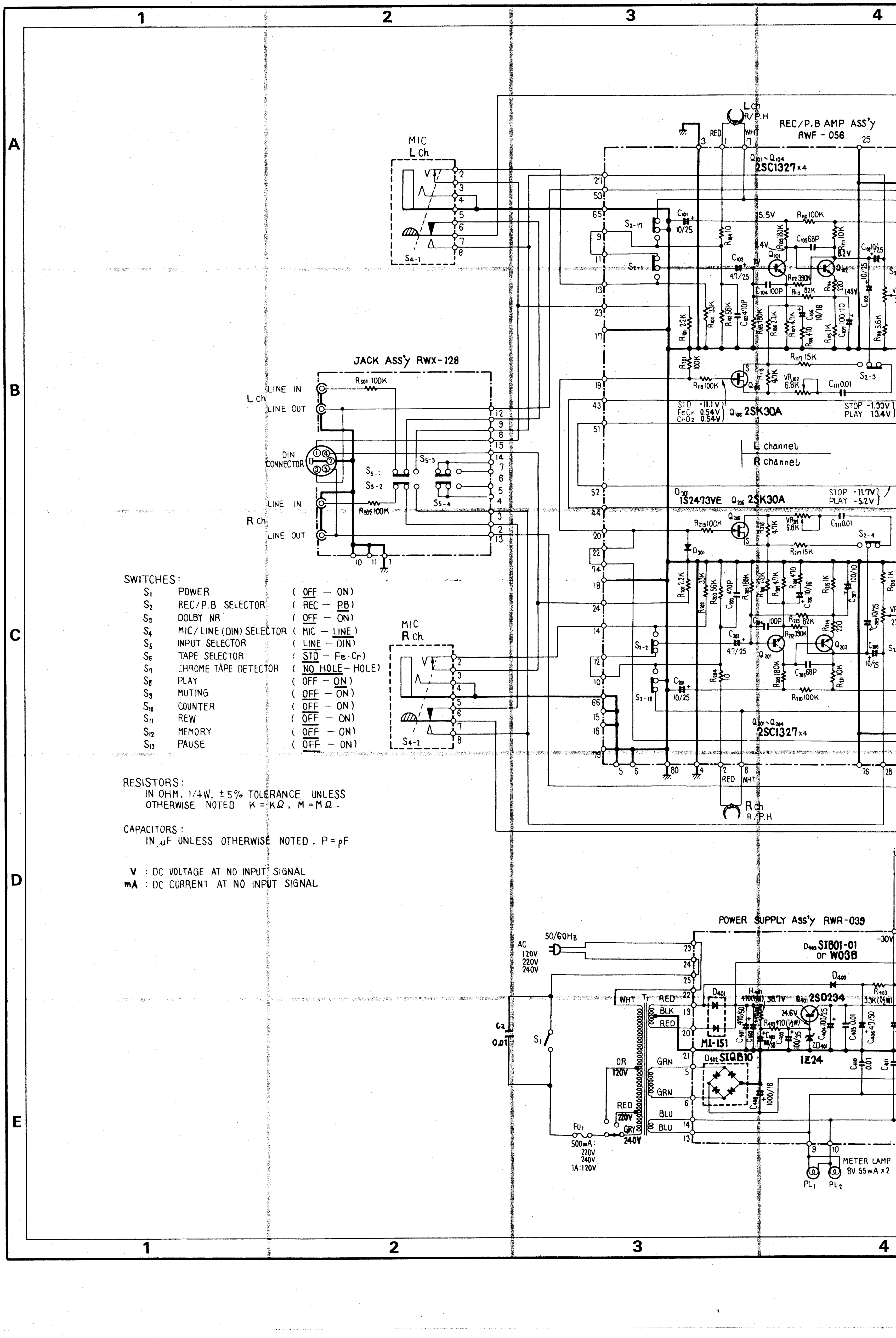
	Q_{112} BASE	Q_{113} BASE	Q_{114} BASE
STD	0.71V	-11.5V	-1.15V
FeCr	-1.57V		0.71V
CrO_2		0.71V	-1.15V

	Q_{301} COLLECTOR	Q_{302} BASE
STD	12.2V	106V
FeCr		
CrO_2	13.9V	1.2V

5
6
7
8
A
B
C
D
E
L ch OUTPUT (P.B) LEVEL CONTROL
HEADPHONES
D102 1N60
Q101~Q103, Q111 2SC1684 or 2SC828 x4
Q112~Q114 2SC828 x3
DOLBY MODULE
2SA564
Q210 2SA564
D301~D304, D305~D308 1S2473VE x6
STD -11.2V FeCr 0.53V CrO2 0.53V
Q301, Q302 2SC735 or 2SC1318 x2
Q303 2SC828
STOP -1.53V R/P 0.8V
Q212~Q214 2SC828 x3
Q201~Q203, Q211 2SC1684 x4
D202 1N60
INDICATOR ASS'Y RWX-130
LED2 TLG113
TLR113P LED1
24V
Rch
L ch
LEVEL METER
E.H
OUTPUT (P.B) LEVEL CONTROL
SWITCH ASS'Y RWS-044
D605 1S2471VE
D601~D606, 1S2473VE x6
Q605 2SC1415 or 2SC790
Q604 2SA564A
D607, D608 SIB01-01 x2
CONTROL ASS'Y RWG-062
SOL (STOP)
PL4 (FeCr)
PL5 (CrO2)
26V 30mAx2
S12
Switch assembly RSX-041

CASSETTE TAPE DECK

CT-F7272 D


1
2
3
4
A
B
C
D
E
Lch
R/P.H
RED
WHT
REC/P.B AMP ASS'y
RWF - 056
Q101~Q104
2SC1327x4
MIC
L Ch
S4-1
S2-17
S2-1
JACK ASS'y RWX-128
LINE IN
L ch
LINE OUT
R501 100K
DIN CONNECTOR
S5-1
S5-2
S5-3
S5-4
R502 100K
R ch
STD -11.1V
FeCr 0.54V
CrO2 0.54V
Q105 2SK30A
STOP -1.33V
PLAY 13.4V
L channel
R channel
D301
1S2473VE
Q205 2SK30A
STOP -11.7V
PLAY -5.2V
MIC
R Ch
S4-2
S2-18
Q201~Q204
2SC1327x4
R ch
R/P.H
POWER SUPPLY ASS'y RWR-039
AC
120V
220V
240V
50/60Hz
C2
0.01
S1
T1
WHT
RED
BLK
GRN
BLU
GRY
OR
120V
220V
240V
FU1
500mA: 220V 240V
1A: 120V
D401
MI-151
D402 SIQB10
D403 SIB01-01 or W03B
Q401 2SD234
ZD401
1E24
38.7V
24.6V
-30V
METER LAMP
8V 55mA x2
PL1
PL2

SWITCHES:

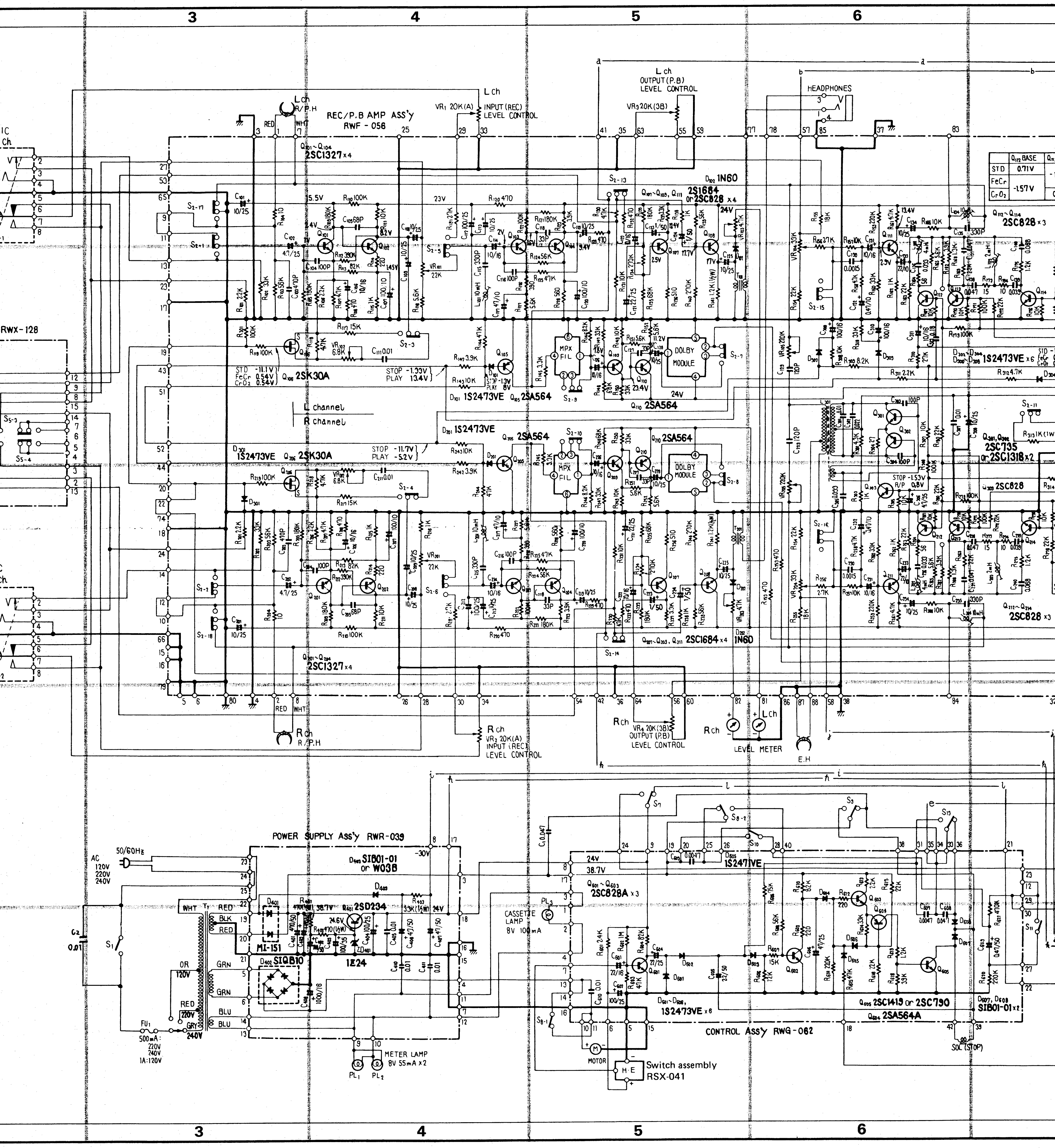
S_1	POWER	(OFF — ON)
S_2	REC/P.B SELECTOR	(REC — P.B)
S_3	DOLBY NR	(OFF — ON)
S_4	MIC/LINE (DIN) SELECTOR	(MIC — LINE)
S_5	INPUT SELECTOR	(LINE — DIN)
S_6	TAPE SELECTOR	(STD — Fe·Cr)
S_7	CHROME TAPE DETECTOR	(NO HOLE — HOLE)
S_8	PLAY	(OFF — ON)
S_9	MUTING	(OFF — ON)
S_{10}	COUNTER	(OFF — ON)
S_{11}	REW	(OFF — ON)
S_{12}	MEMORY	(OFF — ON)
S_{13}	PAUSE	(OFF — ON)

RESISTORS:
IN OHM, 1/4W, ±5% TOLERANCE UNLESS OTHERWISE NOTED K = kΩ, M = MΩ.

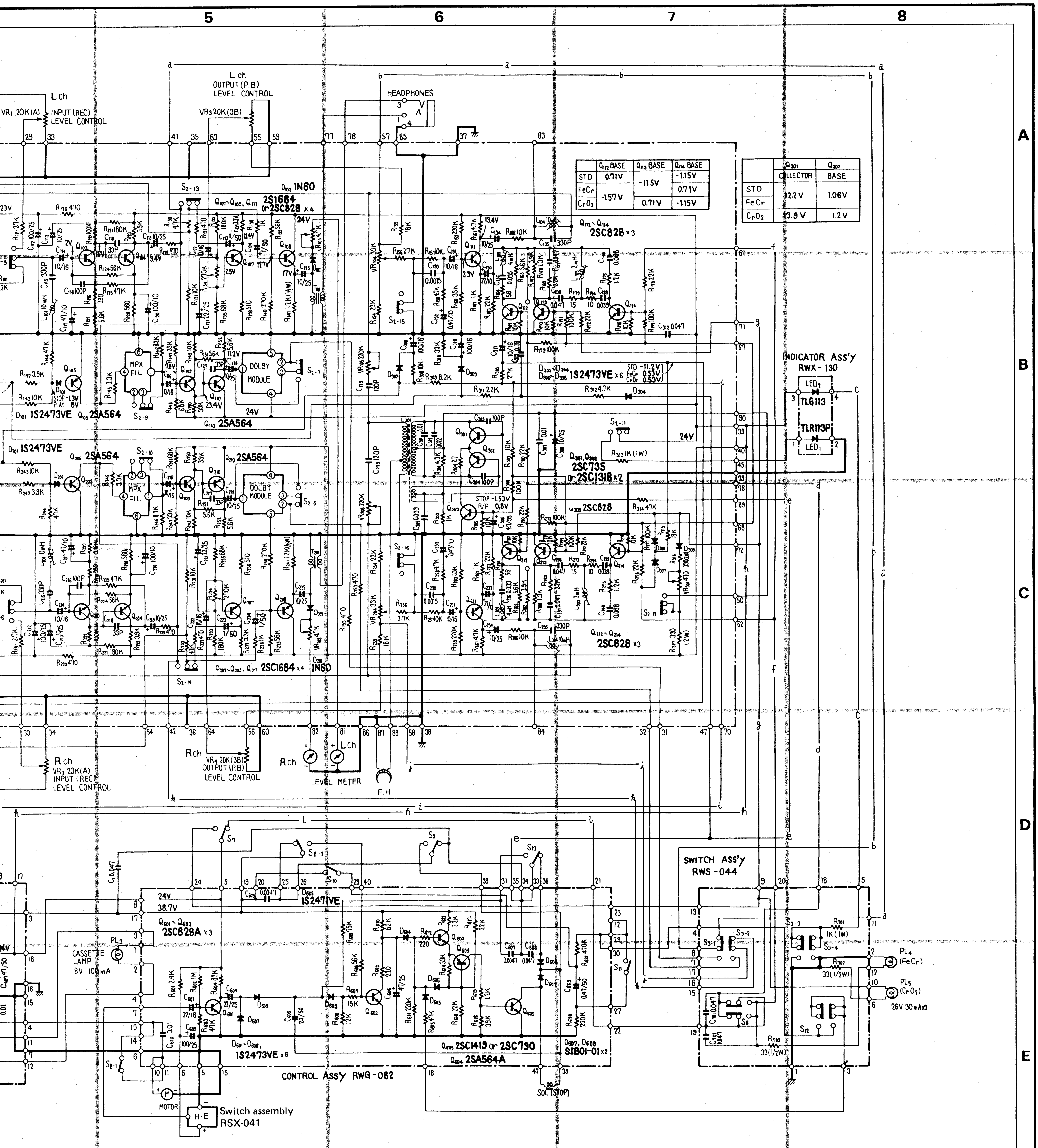
CAPACITORS:
IN μF UNLESS OTHERWISE NOTED. P = pF

V : DC VOLTAGE AT NO INPUT SIGNAL
mA : DC CURRENT AT NO INPUT SIGNAL

72 D


3
4
5
6
REC/P.B AMP ASS'y RWF-056
L ch R/P.H
L ch INPUT (REC) LEVEL CONTROL
VR₁ 20K (A)
L ch OUTPUT (P.B) LEVEL CONTROL
VR₃ 20K (3B)
HEADPHONES
Q₁₀₁~Q₁₀₄ 2SC1327 x4
Q₁₀₇~Q₁₀₉, Q₁₁₁ 2SC1684 or 2SC828 x4
D₁₀₂ 1N60
Q₁₁₂~Q₁₁₄ 2SC828 x3
Q₁₁₂ BASE
STD 0.71V
FeCr -1.57V
CrO₂
Q₁₀₆ 2SK30A
STD -11.1V
FeCr 0.54V
CrO₂ 0.54V
STOP -1.33V
PLAY 13.4V
D₁₀₁ 1S2473VE
Q₁₀₅ 2SA564
MPX FIL
DOLBY MODULE
Q₁₁₀ 2SA564
L channel
R channel
RWX-128
D₃₀₁ 1S2473VE
Q₂₀₆ 2SK30A
STOP -11.7V
PLAY -5.2V
D₂₀₁ 1S2473VE
Q₂₀₅ 2SA564
Q₂₁₀ 2SA564
D₃₀₂~D₃₀₄, D₃₀₆~D₃₀₈ 1S2473VE x6
Q₃₀₁, Q₃₀₂ 2SC735 or 2SC1318 x2
Q₃₀₃ 2SC828
STOP -1.53V
R/P 0.8V
Q₂₀₁~Q₂₀₄ 2SC1327 x4
Q₂₀₇~Q₂₀₉, Q₂₁₁ 2SC1684 x4
D₂₀₂ 1N60
Q₂₁₂~Q₂₁₄ 2SC828 x3
R ch R/P.H
R ch VR₂ 20K (A) INPUT (REC) LEVEL CONTROL
R ch VR₄ 20K (3B) OUTPUT (P.B) LEVEL CONTROL
R ch L ch LEVEL METER
E.H
POWER SUPPLY Ass'y RWR-039
AC 120V 220V 240V
50/60Hz
D₄₀₃ S1B01-01 or W03B
D₄₀₁ MI-151
D₄₀₂ S1QB10
Q₄₀₁ 2SD234
1Z24
38.7V
24.6V
24V
-30V
T₁
WHT RED BLK RED GRN GRN BLU BLU
OR 120V
RED 220V
GRY 240V
C₂ 0.01
S₁
FU₁ 500mA: 220V 240V 1A: 120V
METER LAMP 8V 55mA x2
PL₁ PL₂
CASSETTE LAMP 8V 100mA
PL₃
Q₆₀₁~Q₆₀₃ 2SC828A x3
D₆₀₅ 1S2471VE
D₆₀₁~D₆₀₆, 1S2473VE x6
Q₆₀₅ 2SC1419 or 2SC790
Q₆₀₄ 2SA564A
D₆₀₇, D₆₀₈ S1B01-01 x2
CONTROL ASS'y RWG-062
MOTOR
Switch assembly RSX-041
SOL (STOP)
S₇ S₈₋₂ S₉ S₁₀ S₁₁ S₈₋₁
3
4
5
6

PIONEER

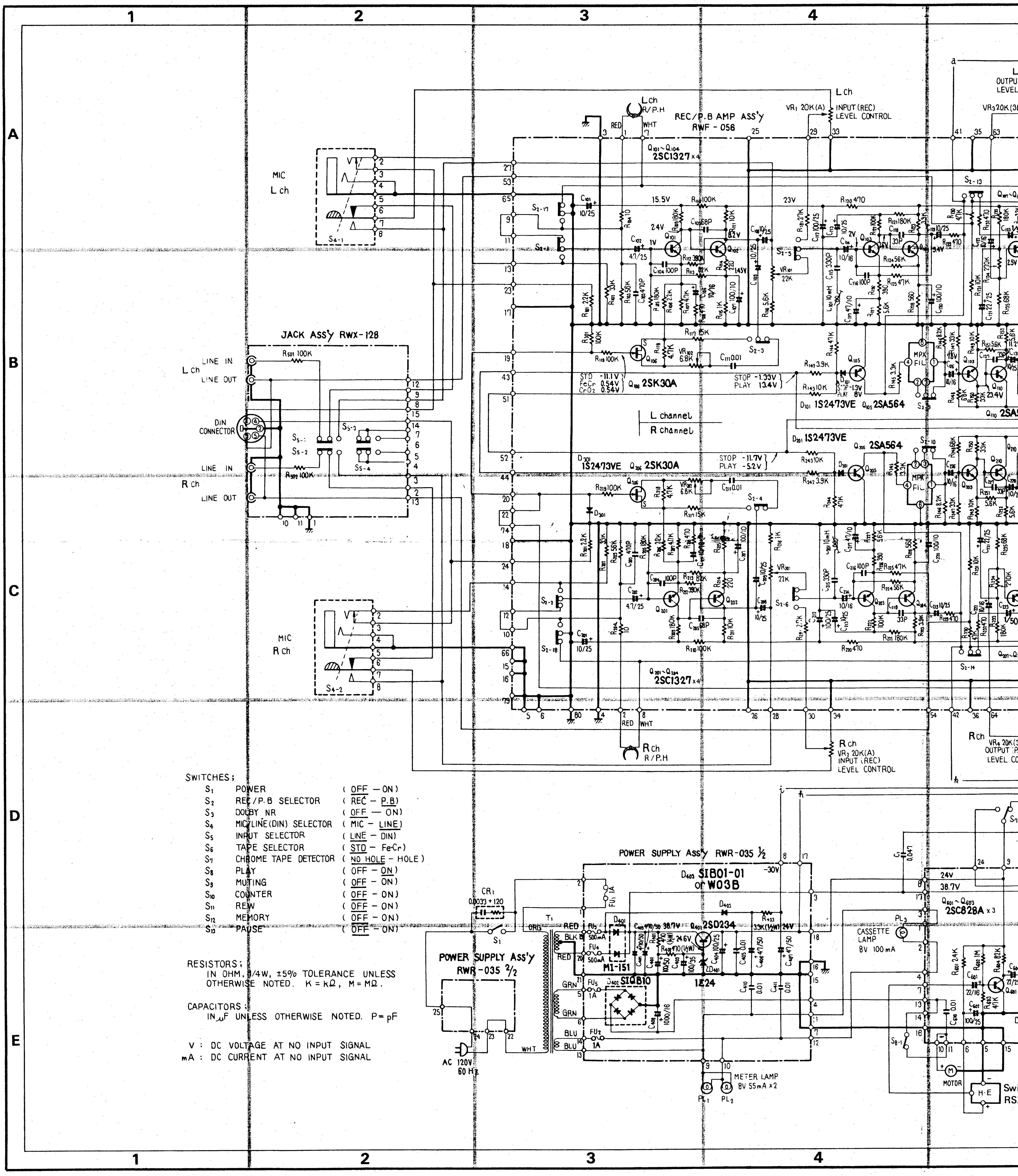

5
6
7
8
A
B
C
D
E
L ch
INPUT (REC) LEVEL CONTROL
VR₁ 20K(A)
L ch
OUTPUT (P.B) LEVEL CONTROL
VR₃ 20K(3B)
HEADPHONES
Q₁₀₁~Q₁₀₃, Q₁₁₁
2SC1684 or 2SC828 ×4
D₁₀₂ 1N60
Q₁₁₂~Q₁₁₄
2SC828 ×3
MPX FIL
DOLBY MODULE
D₁₀₁ 1S2473VE
Q₁₀₅ 2SA564
Q₁₁₀ 2SA564
D₃₀₁~D₃₀₄, D₂₀₅~D₂₀₆ 1S2473VE ×6
INDICATOR ASS'Y RWX-130
LED₂
TLG113
TLR113P
LED₁
D₂₀₁ 1S2473VE
Q₂₀₅ 2SA564
Q₂₁₀ 2SA564
Q₃₀₁, Q₃₀₂
2SC735 or 2SC1318 ×2
R₃₁₃ 1K (1W)
STOP -1.53V
R/P 0.8V
Q₃₀₃ 2SC828
Q₂₁₂~Q₂₁₄
2SC828 ×3
Q₂₀₁~Q₂₀₃, Q₂₁₁ 2SC1684 ×4
D₂₀₂ 1N60
R ch
VR₂ 20K(A)
INPUT (REC) LEVEL CONTROL
R ch
VR₄ 20K(3B)
OUTPUT (P.B) LEVEL CONTROL
R ch
L ch
LEVEL METER
E.H
Q₆₀₁~Q₆₀₃
2SC828A ×3
CASSETTE LAMP 8V 100mA
PL₃
D₆₀₅ 1S2471VE
D₆₀₁~D₆₀₆, 1S2473VE ×6
Q₆₀₅ 2SC1419 or 2SC730
Q₆₀₄ 2SA564A
D₆₀₇, D₆₀₈ SIB01-01 ×2
CONTROL ASS'Y RWG-062
SOL (STOP)
MOTOR
H·E
Switch assembly RSX-041
SWITCH ASS'Y RWS-044
PL₄ (FeCr)
PL₅ (CrO₂)
26V 30mA ×2
24V
38.7V

	Q₁₁₂ BASE	Q₁₁₃ BASE	Q₁₁₄ BASE
STD	0.71V	-11.5V	-1.15V
FeCr	-1.57V		0.71V
CrO₂		0.71V	-1.15V

	Q₃₀₁	Q₃₀₂
	COLLECTOR	BASE
STD	12.2V	1.06V
FeCr		
CrO₂	13.9V	1.2V

CASSETTE TAPE DECK

CT-F7272 KCU


1
2
3
4
A
B
C
D
E
MIC
L ch
R ch
JACK ASS'Y RWX-128
LINE IN
LINE OUT
DIN CONNECTOR
Lch R/P.H
Rch R/P.H
RED
WHT
REC/P.B AMP ASS'Y RWF-056
Q101~Q104 2SC1327×4
Q201~Q204 2SC1327×4
VR1 20K(A) INPUT (REC) LEVEL CONTROL
VR2 20K(A) INPUT (REC) LEVEL CONTROL
OUTPUT LEVEL
L channel
R channel
Q106 2SK30A
Q306 2SK30A
D101 1S2473VE
D301 1S2473VE
D201 1S2473VE
Q105 2SA564
Q305 2SA564
STD -11.1V
FeCr 0.54V
CrO2 0.54V
STOP -1.33V
PLAY 13.4V
STOP -11.7V
PLAY -5.2V
MPX FIL
POWER SUPPLY ASS'Y RWR-035 1/2
POWER SUPPLY ASS'Y RWR-035 2/2
D403 SIB01-01 or W03B
Q401 2SD234
D402 SIQB10
M1-151
1E24
ZD401
-30V
38.7V
24.6V
24V
CR1 0.0033+120
S1
T1
FU1 1A
FU4 500mA
FU5 500mA
FU2 1A
RED
BLK
GRN
BLU
ORG
WHT
AC 120V 60 Hz
METER LAMP 8V 55mA ×2
PL1
PL2
PL3
CASSETTE LAMP 8V 100mA
Q601~Q603 2SC828A ×3
MOTOR
H-E

SWITCHES;

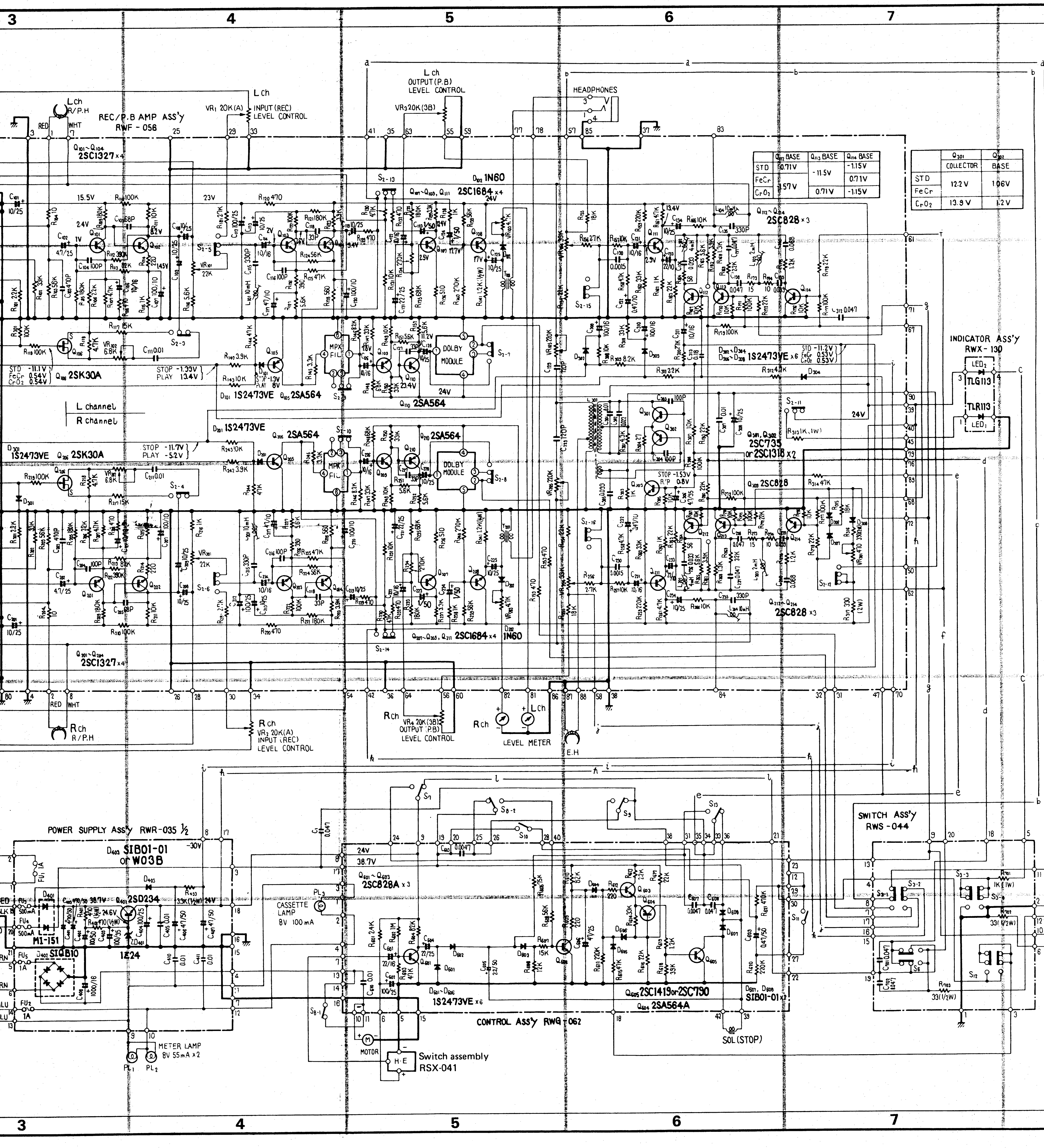
S_1	POWER	(OFF – ON)
S_2	REC/P.B SELECTOR	(REC – P.B)
S_3	DOLBY NR	(OFF — ON)
S_4	MIC/LINE(DIN) SELECTOR	(MIC – LINE)
S_5	INPUT SELECTOR	(LINE – DIN)
S_6	TAPE SELECTOR	(STD – Fe-Cr)
S_7	CHROME TAPE DETECTOR	(NO HOLE – HOLE)
S_8	PLAY	(OFF – ON)
S_9	MUTING	(OFF – ON)
S_{10}	COUNTER	(OFF – ON)
S_{11}	REW	(OFF – ON)
S_{12}	MEMORY	(OFF – ON)
S_{13}	PAUSE	(OFF – ON)

RESISTORS;
IN OHM, 1/4W, ±5% TOLERANCE UNLESS OTHERWISE NOTED. K = kΩ, M = MΩ.

CAPACITORS;
IN µF UNLESS OTHERWISE NOTED. P = pF

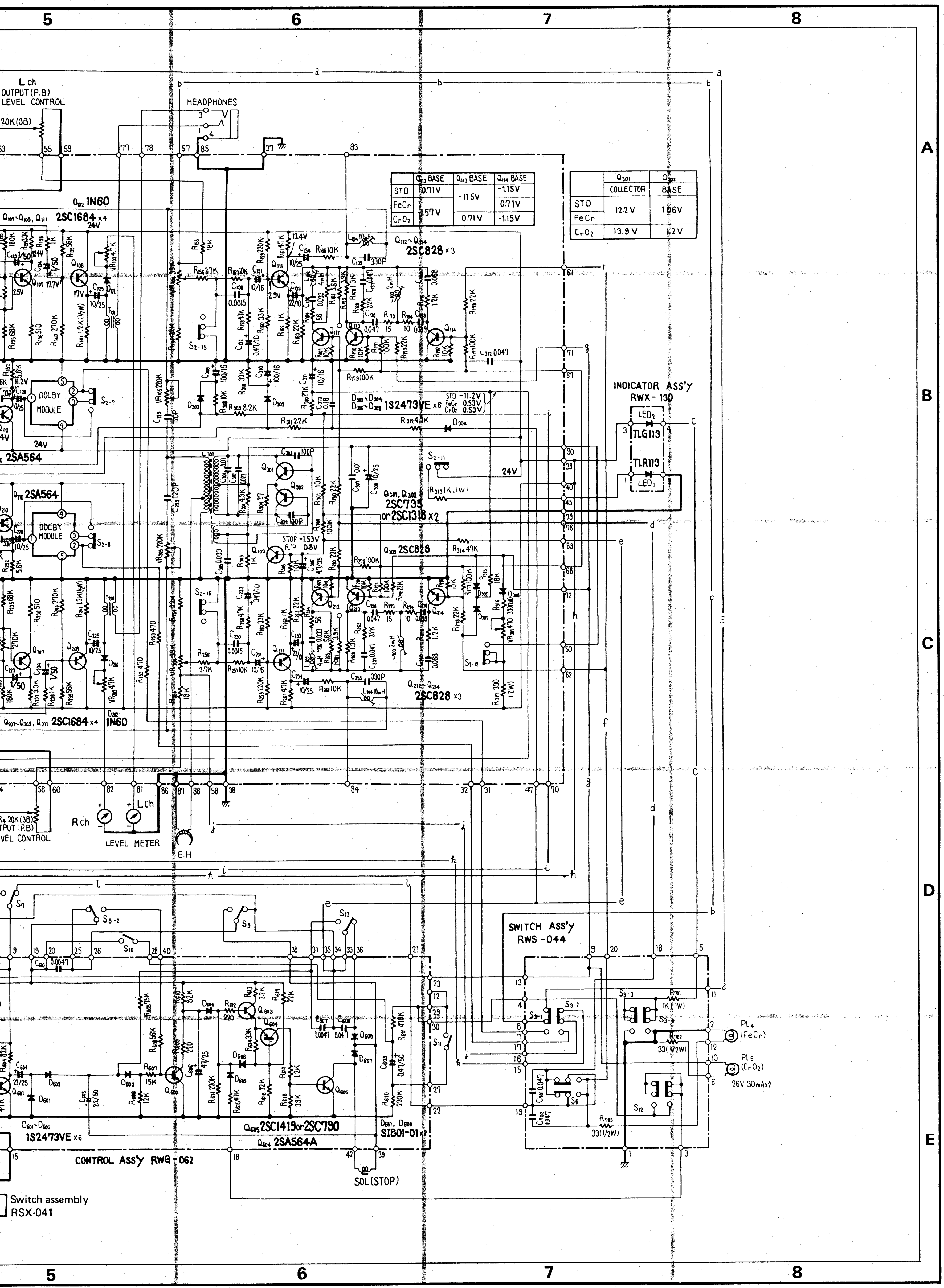
V : DC VOLTAGE AT NO INPUT SIGNAL
mA : DC CURRENT AT NO INPUT SIGNAL

U


3
4
5
6
7
REC/P.B AMP ASS'y RWF-056
L ch R/P.H
RED
WHT
VR1 20K(A) L ch INPUT (REC) LEVEL CONTROL
L ch OUTPUT (P.B) LEVEL CONTROL
VR3 20K(3B)
HEADPHONES
Q101~Q104 2SC1327×4
D102 1N60
Q107~Q109, Q111 2SC1684×4
Q112~Q114 2SC828×3
Q106 2SK30A
D101 1S2473VE
Q105 2SA564
Q110 2SA564
DOLBY MODULE
MPX FIL
STD -11.1V FeCr 0.54V CrO2 0.54V
STOP -1.33V PLAY 13.4V
D302~D304 D306~D308 1S2473VE×6
STD -11.2V FeCr 0.53V CrO2 0.53V
INDICATOR ASS'y RWX-130
LED2 TLG113
TLR113 LED1
L channel
R channel
D201 1S2473VE
Q205 2SA564
Q210 2SA564
D301 1S2473VE Q206 2SK30A
STOP -11.7V PLAY -5.2V
Q301, Q302 2SC735 or 2SC1318×2
STOP -1.53V R/P 0.8V
Q303 2SC828
Q212~Q214 2SC828×3
Q207~Q209, Q211 2SC1684×4
D202 1N60
Q201~Q204 2SC1327×4
R ch R/P.H
R ch VR2 20K(A) INPUT (REC) LEVEL CONTROL
R ch VR4 20K(3B) OUTPUT (P.B) LEVEL CONTROL
R ch L ch LEVEL METER
E.H
POWER SUPPLY ASS'y RWR-035 ½
D405 SIB01-01 or W03B
Q401 2SD234
M1-151
D402 SIQB10
1Z24
FU1 1A
FU5 500mA
FU4 500mA
FU3 1A
FU2 1A
METER LAMP 8V 55mA×2
PL1 PL2
CASSETTE LAMP 8V 100mA
PL3
Q601~Q603 2SC828A×3
D601~D606 1S2473VE×6
Q605 2SC1419 or 2SC790
Q604 2SA564A
D607, D608 SIB01-01×2
CONTROL ASS'y RWG-062
SOL (STOP)
MOTOR
Switch assembly RSX-041
H·E
SWITCH ASS'y RWS-044
S7
S8-2
S9
S10
S11
S12
S13
S8-1
S3-1
S3-2
S3-3
S6
3
4
5
6
7

	Q112 BASE	Q113 BASE	Q114 BASE
STD	0.71V	-11.5V	-1.15V
FeCr	1.57V		0.71V
CrO2		0.71V	-1.15V

	Q301	Q302
	COLLECTOR	BASE
STD	12.2 V	1.06V
FeCr		
CrO2	13.9 V	1.2 V


5
6
7
8
A
B
C
D
E
L ch
OUTPUT (P.B)
LEVEL CONTROL
HEADPHONES
D₁₀₂ 1N60
Q₁₀₁~Q₁₀₃, Q₁₁₁ 2SC1684 ×4
24V
Q₁₁₂~Q₁₁₄ 2SC828 ×3
S₂₋₁₅
DOLBY MODULE
S₂₋₇
2SA564
Q₂₁₀ 2SA564
S₂₋₈
D₃₀₂~D₃₀₄, D₃₀₆~D₃₀₈ 1S2473VE ×6
STD -11.2V
FeCr 0.53V
CrO₂ 0.53V
S₂₋₁₁
Q₃₀₁, Q₃₀₂ 2SC735 or 2SC1318 ×2
R₃₁₃ 1K (1W)
STOP -1.53V
R/P 0.8V
Q₃₀₃ 2SC828
S₂₋₁₆
S₂₋₁₂
Q₂₁₂~Q₂₁₄ 2SC828 ×3
Q₂₀₁~Q₂₀₃, Q₂₁₁ 2SC1684 ×4
D₂₀₂ 1N60
INDICATOR ASS'Y
RWX-130
LED₂
TLG113
TLR113
LED₁
R ch
L ch
LEVEL METER
E.H
OUTPUT (P.B)
LEVEL CONTROL
S₇
S₈₋₂
S₉
S₁₀
S₁₃
S₁₁
SWITCH ASS'Y
RWS-044
S₃₋₁
S₃₋₂
S₃₋₃
S₆
S₁₂
PL₄ (FeCr)
PL₅ (CrO₂)
26V 30mA×2
D₆₀₁~D₆₀₆ 1S2473VE ×6
Q₆₀₅ 2SC1419 or 2SC790
Q₆₀₄ 2SA564A
D₆₀₇, D₆₀₈ SIB01-01 ×2
CONTROL ASS'Y RWG-062
SOL (STOP)
Switch assembly
RSX-041

	Q_{112} BASE	Q_{113} BASE	Q_{114} BASE
STD	0.71V	-11.5V	-1.15V
FeCr	1.57V		0.71V
CrO_2		0.71V	-1.15V

	Q_{301}	Q_{302}
	COLLECTOR	BASE
STD	12.2V	1.06V
FeCr		
CrO_2	13.9V	1.2V